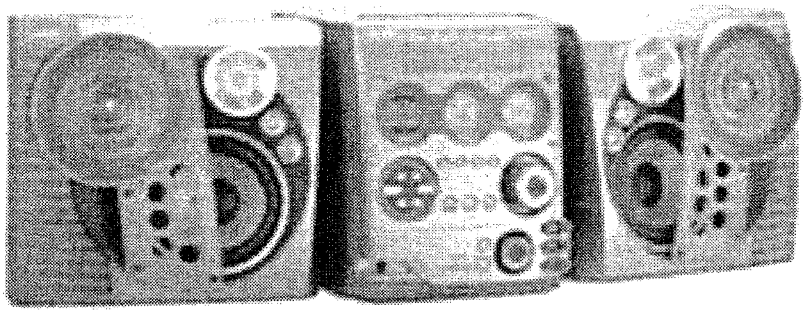
Mini System **FW-C777/21/37**

Service
Service
Service



Service Manual

COMPACT
disc
DIGITAL AUDIO

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CLASS 1
LASER PRODUCT

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GB 3139 785 30322

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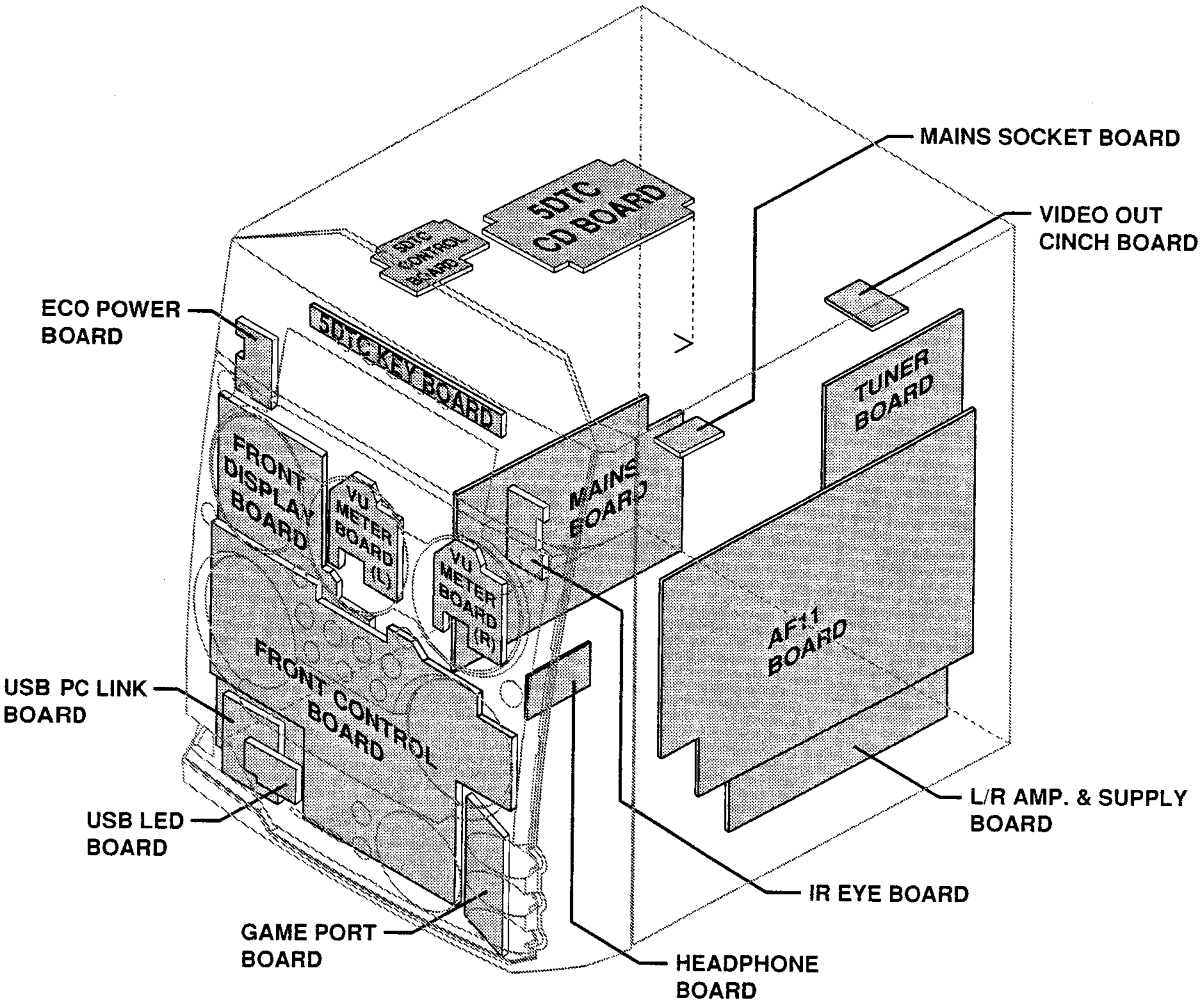
Version 1.2

PHILIPS

LOCATION OF PRINTED CIRCUIT BOARDS


MAINS SOCKET BOARD
VIDEO OUT CINCH BOARD
5DTC CD BOARD
5DTC CONTROL BOARD
ECO POWER BOARD
5DTC KEY BOARD
TUNER BOARD
FRONT DISPLAY BOARD
VU METER BOARD (L)
MAINS BOARD
VU METER BOARD (R)
AF11 BOARD
USB PC LINK BOARD
FRONT CONTROL BOARD
USB LED BOARD
L/R AMP. & SUPPLY BOARD
IR EYE BOARD
GAME PORT BOARD
HEADPHONE BOARD

VERSION VARIATIONS:

Type /Versions:	FW-C777									
Features & Board in used:	/21	/37								
Aux in / CDR in	x	x								
Line Out	x	x								
Video Out	x	x								
Surround Out										
Subwoofer Out										
Power Booster Out										
Digital Out										
Digital in										
Matrix Surround										
RDS										
News										
Dolby Pro Logic (DPL)										
Incredible Surround	x	x								
Karaoke Features										
Voltage Selector	x									
ECO Power Standby (Clock Display Off)	x	x								
ECO6 Tuner Board - Systems Non-Cenelec	x	x								
ECO6 Tuner Board - Systems Cenelec										
USB PC LINK	x	x								
Game Port (Video / Audio L / Audio R)	x	x								

SPECIFICATIONS

GENERAL:

Mains voltage : 110-127V/220-240V Switchable for /21/21M
120V for /37
220V for /33
220-230V for /22/34
230-240V for /30
Mains frequency : 50/60Hz
Power consumption : < 1W at ECO Power Standby
: < 25W at Standby (DEMO mode off)
: 175W at Active
Clock accuracy : < 4 seconds per day
Dimension centre unit : 265 x 322 x 390mm

TUNER:

FM

Tuning range : 87.5-108MHz
Grid : 50kHz
100kHz for /37
IF frequency : 10.7MHz ± 25kHz
Aerial input : 75 ohm coaxial
300 ohm click fit for /37
Sensitivity at 26dB S/N : < 7uV
Selectivity at 600kHz bandwidth : > 25dB
Image rejection : > 25dB [> 75dB]
Distortion at RF=1mV, dev. 75kHz : < 3%
-3dB Limiting point : < 8uV
Crosstalk at RF=1mV, dev. 40kHz : > 18dB

MW

Tuning range : 531-1602kHz
530-1700kHz for /21/21M/37
Grid : 9kHz
10kHz for /21/21M/37
IF frequency : 450kHz ± 1kHz
Aerial input : Frame aerial
Sensitivity at 26dB S/N : < 4.0mV/M
Selectivity at 18kHz bandwidth : > 18dB
IF rejection : > 45dB
Image rejection : > 28dB
Distortion at RF=50mV, M=80% : < 5%

AMPLIFIER:

Output power (6 ohm, 1kHz, 10% THD)
L & R : 2 x 165W RMS

Output power (6 ohm, 60Hz-12.5kHz, 10% THD)
L & R : 2 x 135W FTC /37

Frequency response within -3dB : 50Hz-16kHz
Incredible Surround : On / Off
Game Sound : Speed /Punch /Blast /Off
WOOX : Level 1, 2, 3 & Off
Digital Sound Control (DSC) : Jazz /Rock /Pop /Optimal
Virtual Ambience Control (VAC) : Cyber / Arcade / Hall / Cinema / Concert

Input sensitivity
Aux in (at 1kHz) : 640mV ± 2dB
Game Port (at 1kHz) : 310mV ± 2dB
USB (at 1kHz) : 830mV at 600 ohm

Output sensitivity
Line out (Left/Right) : 450mV ± 2dB at 22 kohm
Headphone output at 32 ohm : 700mV ± 2dB (Max. vol.)

5DTC:

Measurement done directly at the connector on the board.
Output Resistance : < 100 ohm
Output Voltage (0dB, 1kHz) : 0.5Vrms ± 1dB (unloaded)
Channel Unbalance : < ±1dB
Channel Separation (1kHz) : > 60dB
Frequency Response (±3dB) : 20Hz-20kHz
Signal to Noise Ratio : > 76dBA

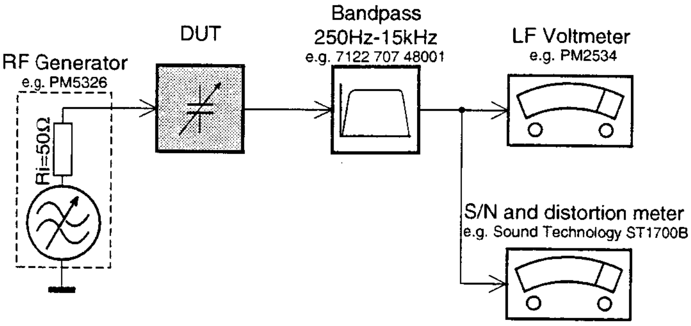
USB:

Measurement done directly at the connector on the board.
Output Impedance (1 kHz) : < 1.5 kohm
Output Voltage (0dB, 1kHz) : 830mVrms ± 1.5dB
Channel Unbalance : < ±1dB
Distortion THD (0dB, 1kHz) : < 0.3%
Channel Separation (1kHz) : > 40dB
Frequency Response (±3dB) : 20Hz-20kHz
Signal to Noise Ratio : > 75dBA

[....] Values indicated are for "ECO6 Cenelec Board" only.

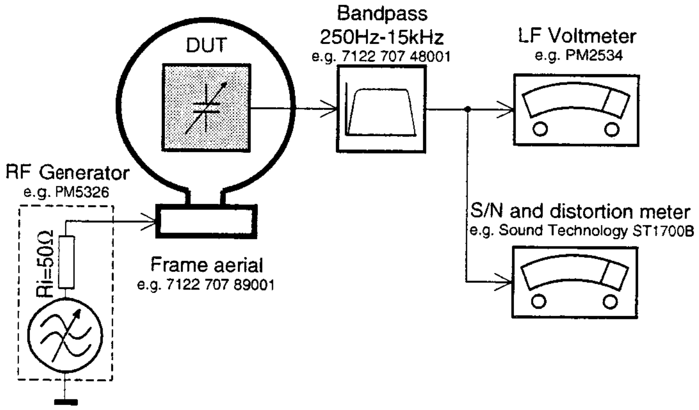
MEASUREMENT SETUP

Tuner FM


DUT
Bandpass
250Hz-15kHz
e.g. 7122 707 48001
LF Voltmeter
e.g. PM2534
RF Generator
e.g. PM5326
Ri=50Ω
S/N and distortion meter
e.g. Sound Technology ST1700B

Use a bandpass filter to eliminate hum (50Hz, 100Hz) and disturbance from the pilottone (19kHz, 38kHz).

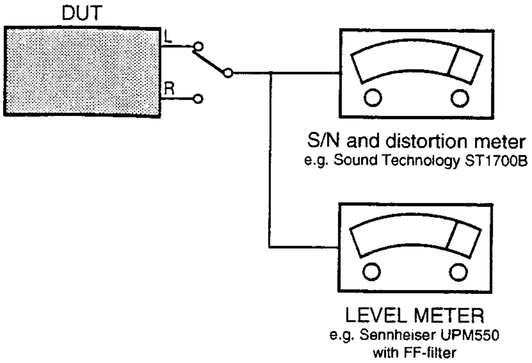
Tuner AM (MW,LW)


Bandpass
250Hz-15kHz
e.g. 7122 707 48001
DUT
LF Voltmeter
e.g. PM2534
RF Generator
e.g. PM5326
Ri=50Ω
S/N and distortion meter
e.g. Sound Technology ST1700B
Frame aerial
e.g. 7122 707 89001

To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday´s cage.
Use a bandpass filter (or at least a high pass filter with 250Hz) to eliminate hum (50Hz, 100Hz).

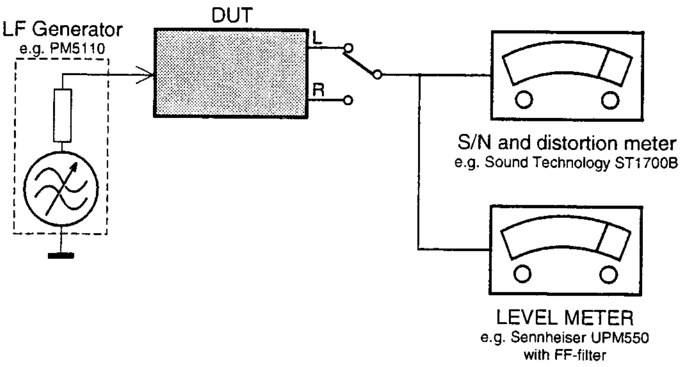
CD

Use Audio Signal Disc SBC429 4822 397 30184
(replaces test disc 3)


DUT
L
R
S/N and distortion meter
e.g. Sound Technology ST1700B
LEVEL METER
e.g. Sennheiser UPM550
with FF-filter

Recorder

Use Universal Test Cassette **CrO2** SBC419 4822 397 30069
or Universal Test Cassette **Fe** SBC420 4822 397 30071


LF Generator
e.g. PM5110
DUT
L
R
S/N and distortion meter
e.g. Sound Technology ST1700B
LEVEL METER
e.g. Sennheiser UPM550
with FF-filter

SERVICE AIDS

Service Tools:

Universal Torx driver holder	4822 395 91019
Torx bit T10 150mm	4822 395 50456
Torx driver set T6 - T20	4822 395 50145
Torx driver T10 extended	4822 395 50423

Cassette:

SBC419 Test cassette CrO2	4822 397 30069
SBC420 Test cassette Fe	4822 397 30071
MTT150 Dolby level 200nWb/M	4822 397 30271

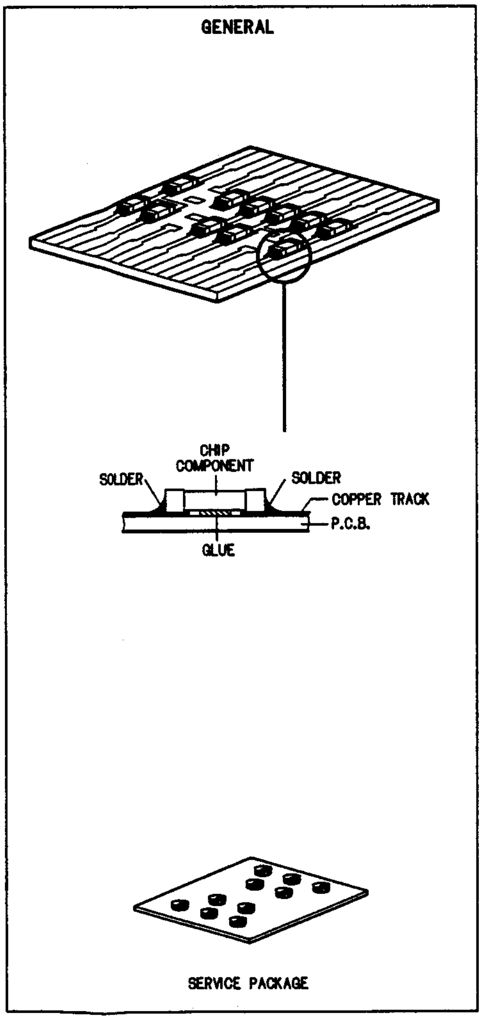
Compact Disc:

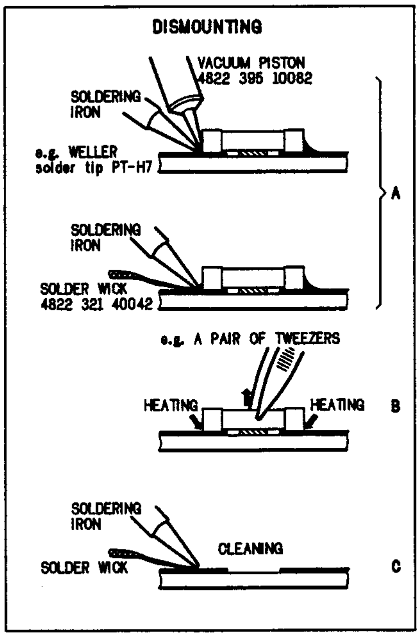
SBC426/426A Test disc 5 + 5A	4822 397 30096
SBC442 Audio Burn-in Test disc 1kHz	4822 397 30155
SBC429 Audio Signals disc	4822 397 30184
Dolby Pro-logic Test Disc	4822 395 10216

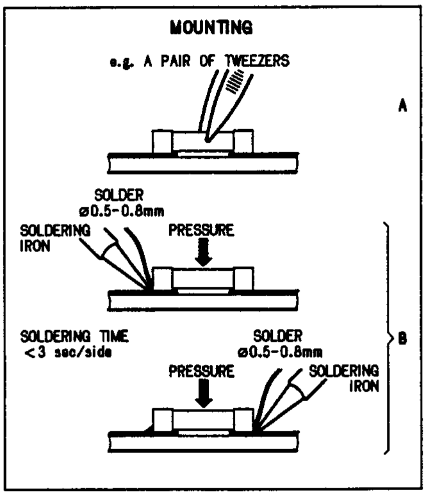
ESD Equipment:

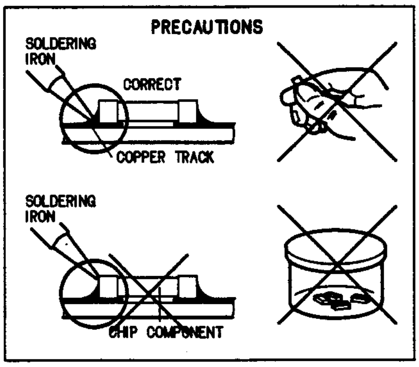
Anti-static table mat - large 1200x650x1.25mm	4822 466 10953
Anti-static table mat - small 600x650x1.25mm	4822 466 10958
Anti-static wristband	4822 395 10223
Connector box (1MΩ)	4822 320 11307
Extension cable (to connect wristband to conn. box)	4822 320 11305
Connecting cable (to connect table mat to conn. box)	4822 320 11306
Earth cable (to connect product to mat or box)	4822 320 11308
Complete kit ESD3 (combining all above products)	4822 320 10671
Wristband tester	4822 344 13999

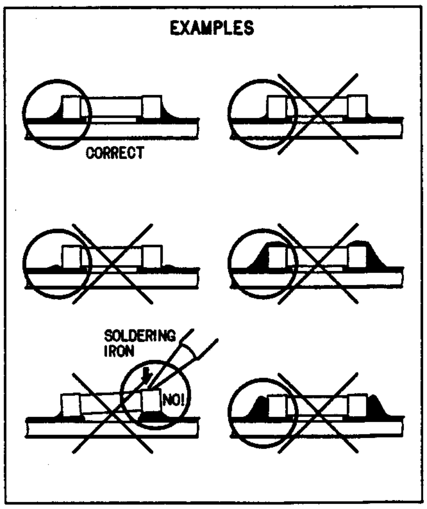
HANDLING CHIP COMPONENTS


GENERAL
CHIP COMPONENT
SOLDER
SOLDER
COPPER TRACK
P.C.B.
GLUE
SERVICE PACKAGE


DISMOUNTING
VACUUM PISTON
4822 395 10082
SOLDERING IRON
e.g. WELLER solder tip PT-H7
A
SOLDERING IRON
SOLDER WICK 4822 321 40042
e.g. A PAIR OF TWEEZERS
HEATING
HEATING
B
SOLDERING IRON
SOLDER WICK
CLEANING
C


MOUNTING
e.g. A PAIR OF TWEEZERS
A
SOLDER
ø0.5-0.8mm
SOLDERING IRON
PRESSURE
SOLDERING TIME
<3 sec/side
SOLDER
ø0.5-0.8mm
PRESSURE
SOLDERING IRON
B


PRECAUTIONS
SOLDERING IRON
CORRECT
COPPER TRACK
SOLDERING IRON
CHIP COMPONENT


EXAMPLES
CORRECT
SOLDERING IRON
NO!

ESD

GB WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD).
Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance.
Keep components and tools also at this potential.

F ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).
Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.
Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

D WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).
Unsorgfältige Behandlung im Reparaturfall kan die Lebensdauer drastisch reduzieren.
Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.
Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

NL WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.
Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

I AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

GB

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used

Safety components are marked by the symbol ⚠.

NL

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

De Veiligheidsonderdelen zijn aangeduid met het symbool ⚠

F

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utiliséés les pièces de rechange identiques à celles spécifiées.

Less composants de sécurité sont marqués ⚠

D

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Original zustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

Sicherheitsbauteile sind durch das Symbol ⚠ markiert.

I

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

Componenty di sicurezza sono marcati con ⚠

GB

After servicing and before returning set to customer perform a leakage current measurement test from all exposed metal parts to earth ground to assure no shock hazard exist. The leakage current must not exceed 0.5mA.

CLASS 1
LASER PRODUCT

GB Warning !

Invisible laser radiation when open.
Avoid direct exposure to beam.

S Varning !

Osynlig laserstrålning när apparaten är öppnad och spärren är urkopplad. Betrakta ej strålen.

SF Varoitus !

Avatussa laitteessa ja suojalukituksen ohitettaessa olet alttiina näkymättömälle laserisäteilylle. Älä katso säteeseen!

DK Advarse !

Usynlig laserstråling ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsaettelse for stråling.

F

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

DISMANTLING INSTRUCTIONS

Dismantling of the 5DTC Module

1) Loosen 4 screws to remove the Cover Top (pos 255) by sliding it out towards the rear before lifting up.
   - 2 screws on the rear
   - 1 screw each on the left & right side

2) Loosen 3 screws each to remove the Panel Left (pos 253) and Panel Right (pos 254). The Panels are removed by sliding it towards the rear and outwards.
   - 2 screws on the rear
   - 1 screw on the side

3) To loosen the Panel Front Display (pos 120), you have to press in the correct direction and position as shown in Figure 1 and Figure 2. Once the Panel Front Display is loosen, remove it out in the direction as shown in Figure 3.

4) Loosen 4 screws A (see Figure 4 and Figure 16) to remove the 5DTC Module (pos 1105).
   - 2 screws on the front
   - 2 screws on the rear

   Note : For information on the 'Emergency opening of the trays' of the 5DTC Module, refer to Chapter 10 (Page 10-7).

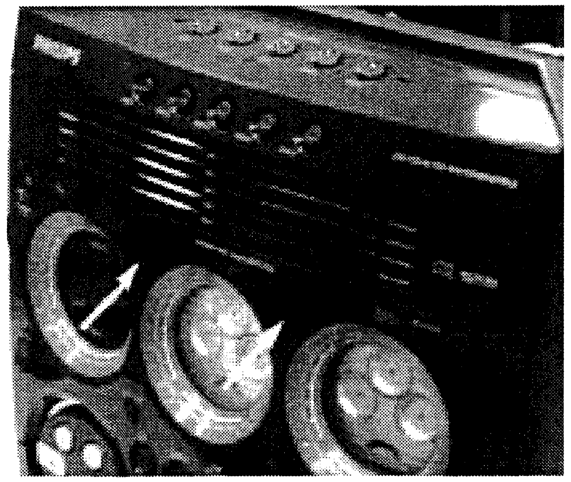


Figure 1

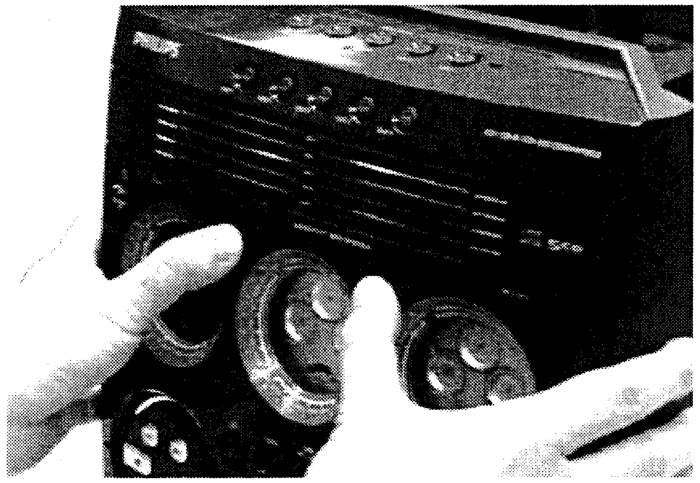


Figure 2

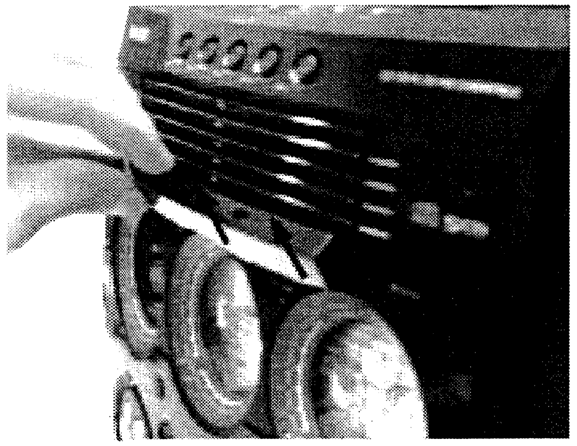


Figure 3

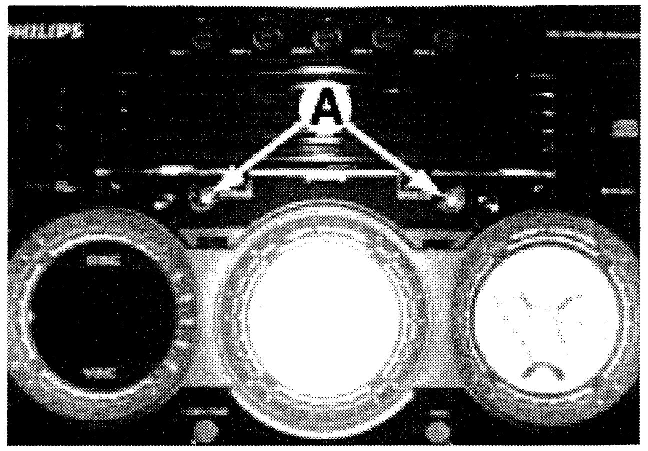


Figure 4

Detaching the Front Panel assembly from the Bottom/Rear assembly

1) Remove 2 screws B (pos 226) as shown in Figure 5 from the bottom of the Cabinet Front (pos 101).

2) Release the fixation of the AF Board (pos1102-A) to Bracket CDC Right (pos 186) by releasing the 2 catches C1 (see Figure 7) and pulling the AF Board outwards as shown in Figure 6.

3) Uncatch 2 catches C2 (see Figure 7) on the left & right sides of the Cabinet Front (pos 101) and slides the Front Panel assembly out towards the front.

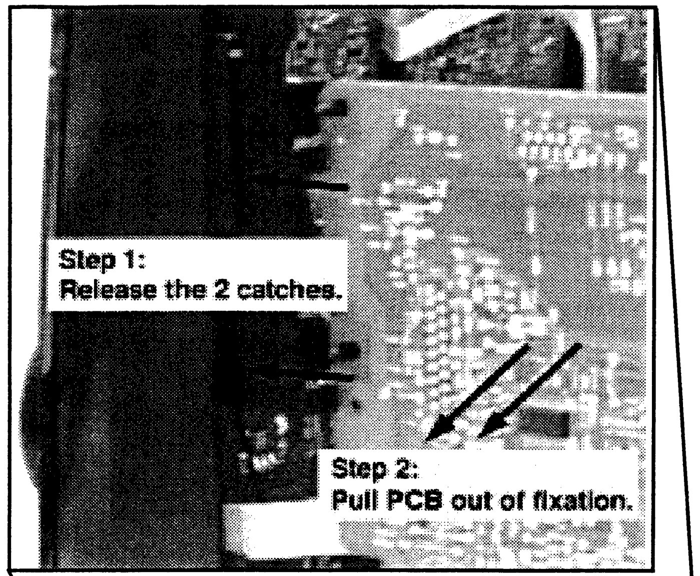


Figure 6

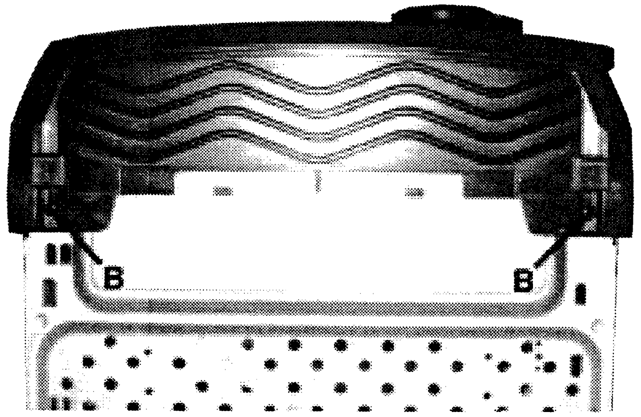


Figure 5

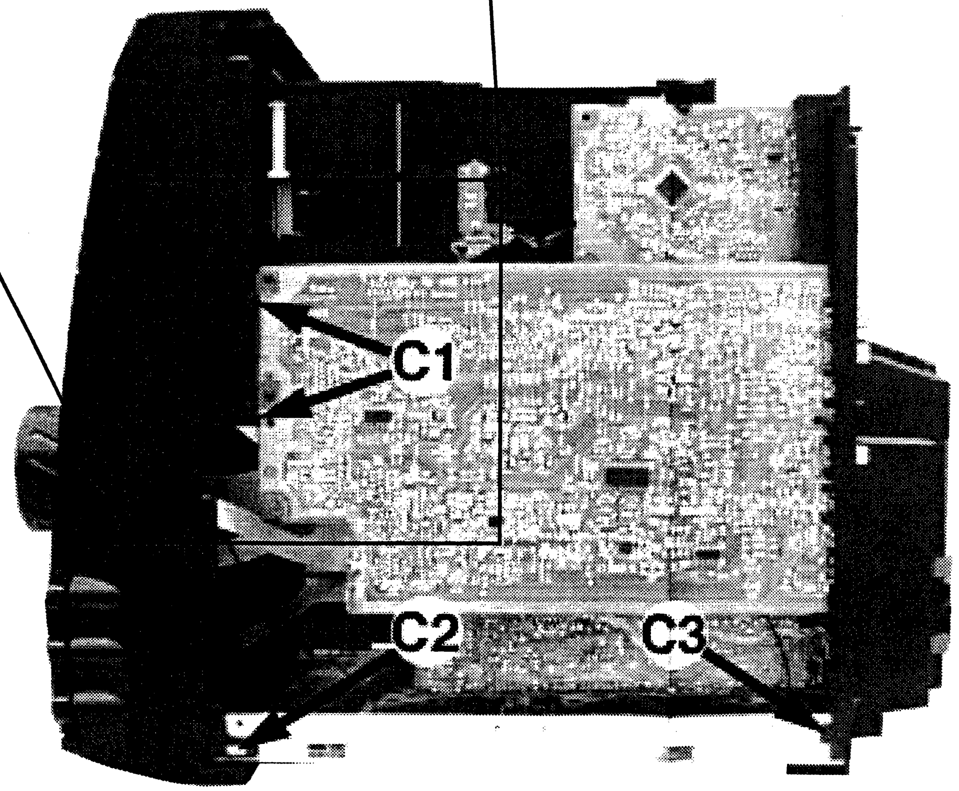


Figure 7

DISMANTLING INSTRUCTIONS

Dismantling of the Front Control Board and Front Display Board

1) The Knob Volume Rotary (pos 164) can be remove by pulling it out in the direction as shown in Figure 8.

2) The Knob Game Sound Control (pos 176) can be remove by pulling it out in the direction as shown in Figure 9.

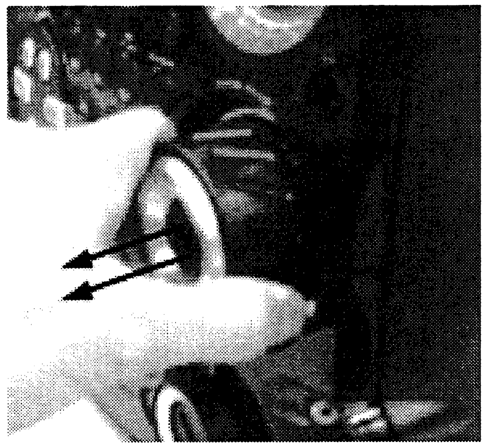


Figure 8

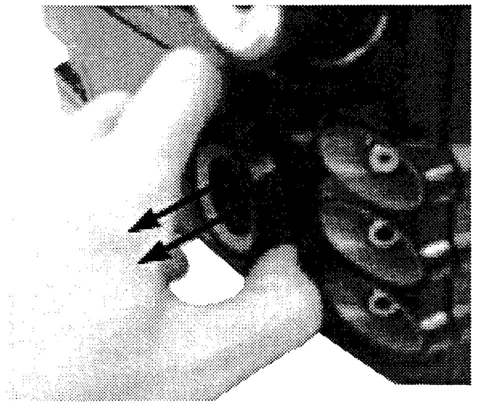


Figure 9

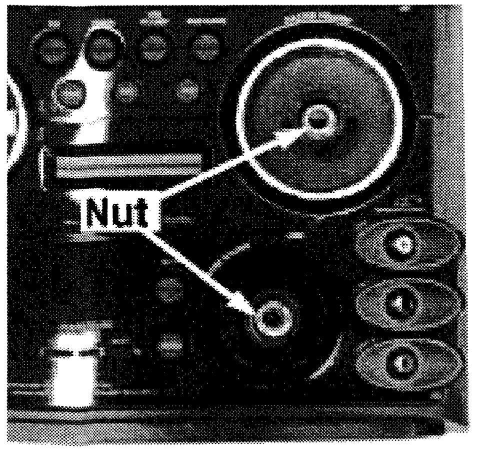


Figure 10

3) Loosen 4 screws D (see Figure 11) to remove the Bracket PCB Front Display (pos 183) and Front Display Board (pos 1101-A).

4) Loosen 1 screw E (see Figure 12) to remove the IR Eye Board (pos 1107-H).

5) Loosen 2 screws F (see Figure 12) to remove the ECO Power Board (pos 1107-E).

6) Loosen 3 screws G (see Figure 12) to remove the Bracket VU Meter 2 (pos 136) and loosen 2 screws H to remove the VU Meter Right Board (pos 1107-D) from the Bracket VU Meter 2.

7) Loosen 3 screws J (see Figure 12) to remove the Bracket VU Meter 1 (pos 129) and loosen 2 screws K to remove the VU Meter Left Board (pos 1107-C) from the Bracket VU Meter 1.

8) Loosen 2 screws L (see Figure 13) to remove the USB PC LINK Board (pos 1104).

9) Loosen 9 screws M (see Figure 13) and loosen the 2 nuts (see Figure 10) to remove the Front Control Board (pos 1107-A).

10) Loosen 1 screw N (see Figure 13) to remove the Headphone Board (pos 1107-B).

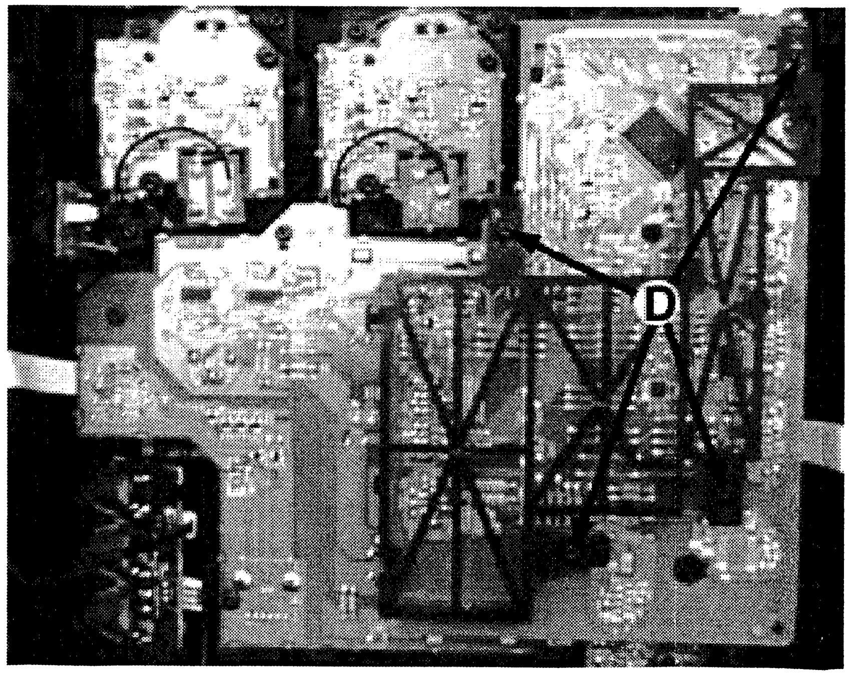


Figure 11

Dismantling of the Front Control Board and Front Display Board

11) Loosen 3 screws P (see Figure 14) to remove the Game Port Board (pos 1107-G).

12) Loosen 2 screws Q (see Figure 15) to remove the USB LED Board (pos 1107-F).

Figure 12

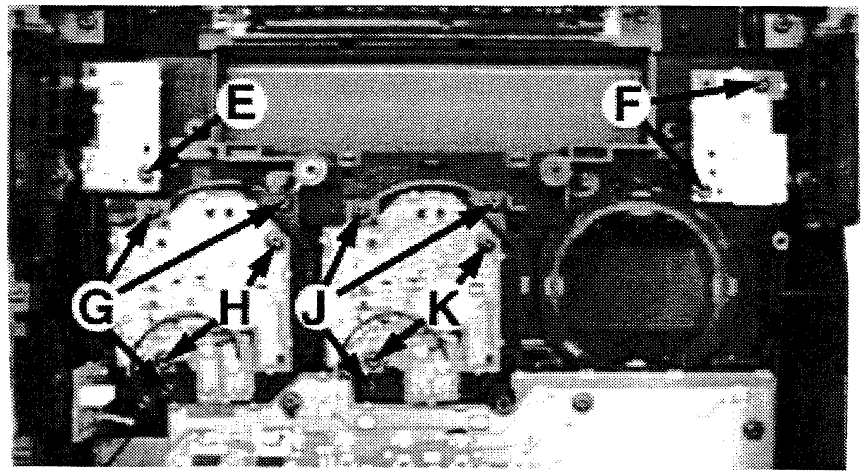
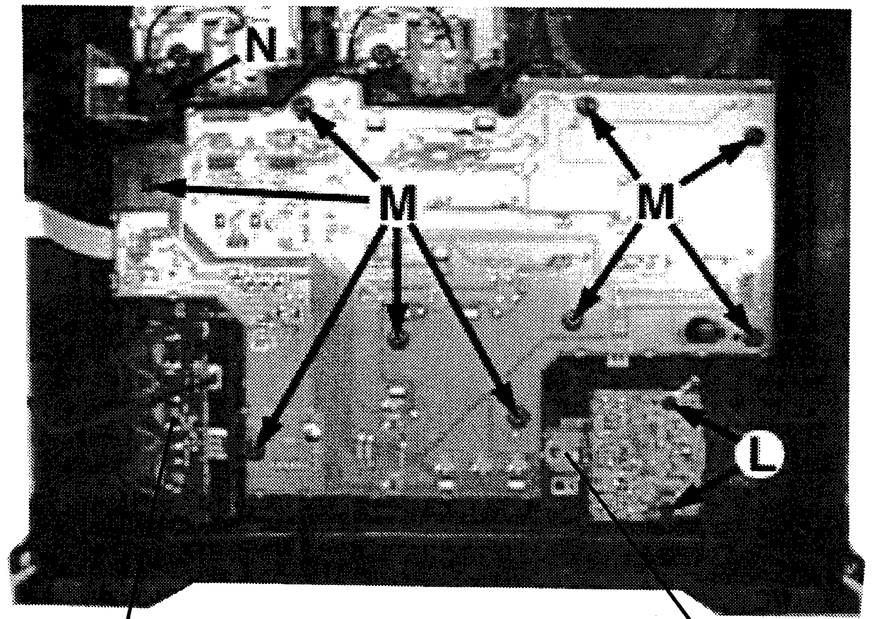


Figure 13



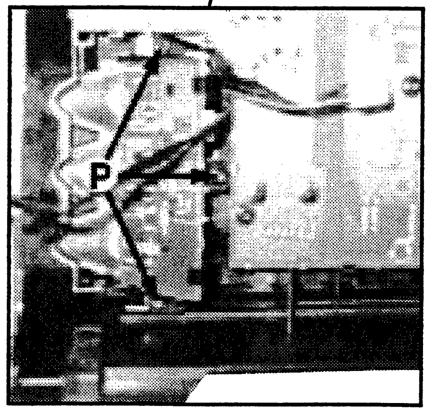


Figure 14

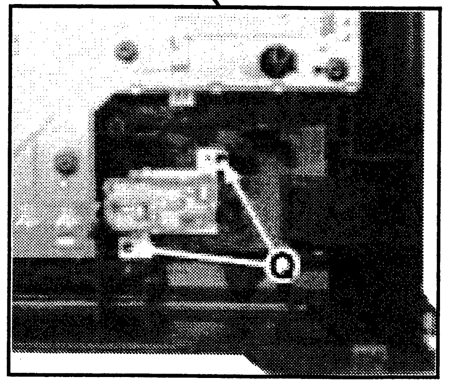


Figure 15

DISMANTLING INSTRUCTIONS

Dismantling of the Rear Panel assembly

1) Loosen 3 screws S and 2 catches C4 (see Figure 16) to remove the Tuner Board assembly.

2) Loosen 2 screws T (see Figure 16) to free the AF Board (pos 1102-A).

3) Loosen 1 screw U (see Figure 16) to remove the Video Cinch Out Board (pos 1102-B).

4) Loosen 1 screw V (see Figure 16) to free the Mains Socket Board (pos 1106-1001-B).

5) Loosen 4 screws W (see Figure 16) and 2 catches C3 (see Figure 7) to remove the Panel Rear (pos 256) by sliding it out towards the rear (see Figure 19).
   Note : Tuner Board assembly and Mains Socket Board can also be remove together with the Panel Rear.

6) Loosen 2 screws Y (see Figure 17) and 2 catches C5 (see Figure 16) to remove the Bracket Fan (pos 266).

7) Loosen 4 screws Z (see Figure 18) to remove the Fan (pos 1121) from the Bracket Fan (pos 266).

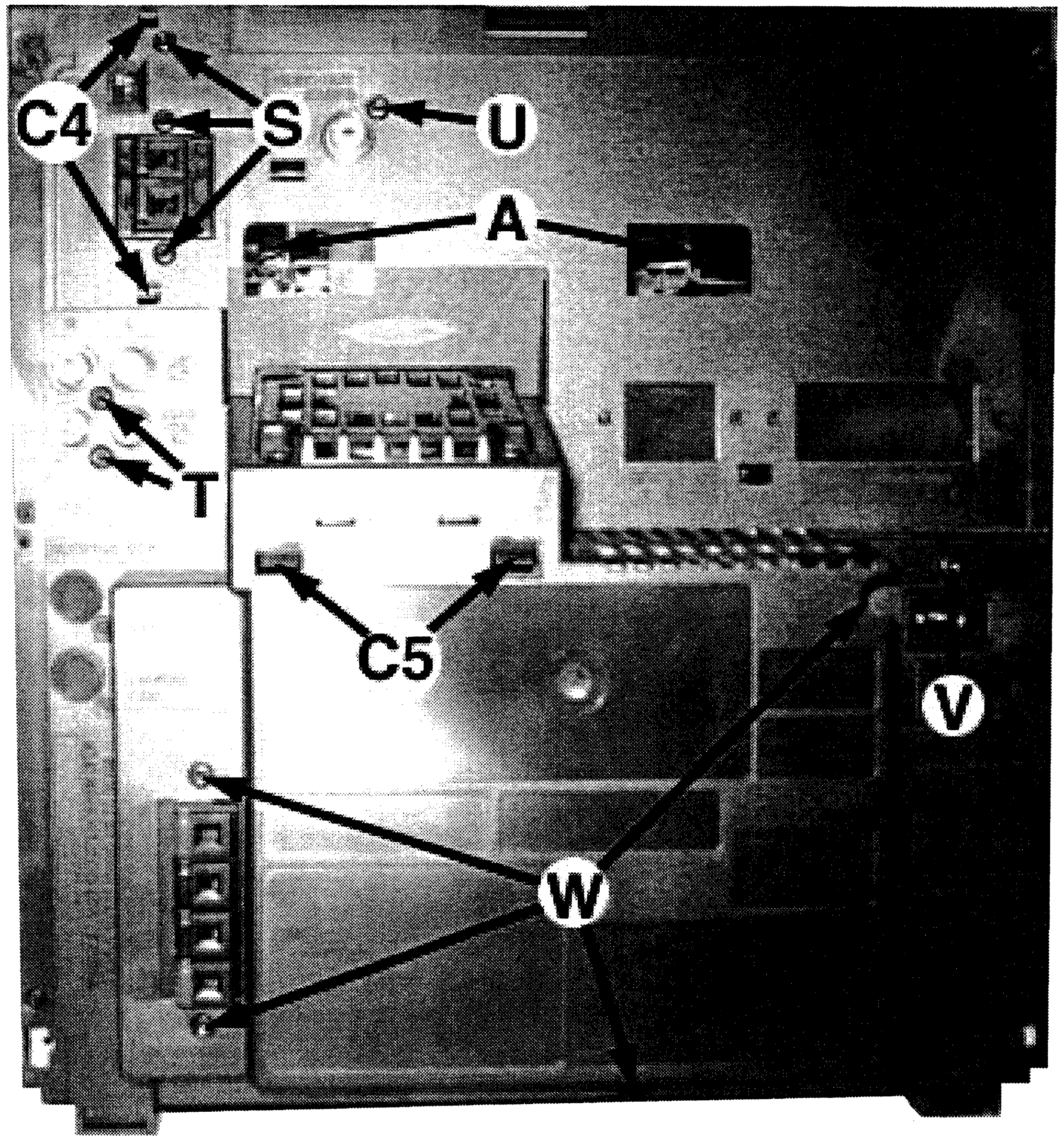


Figure 16

Dismantling of the Rear Panel assembly

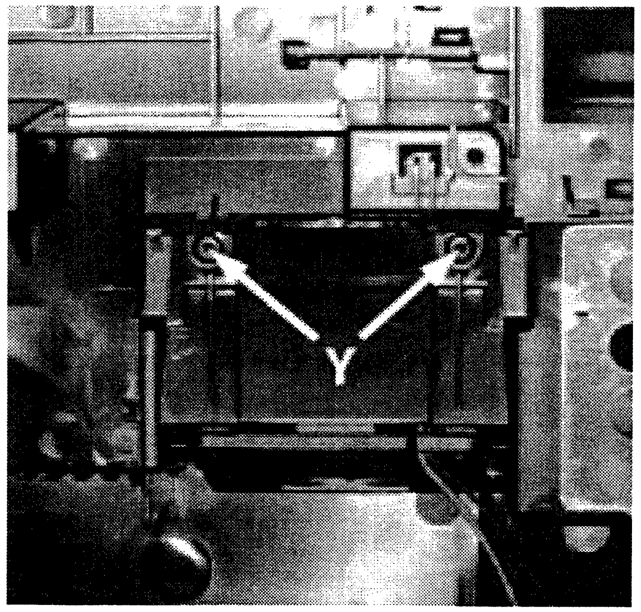


Figure 17

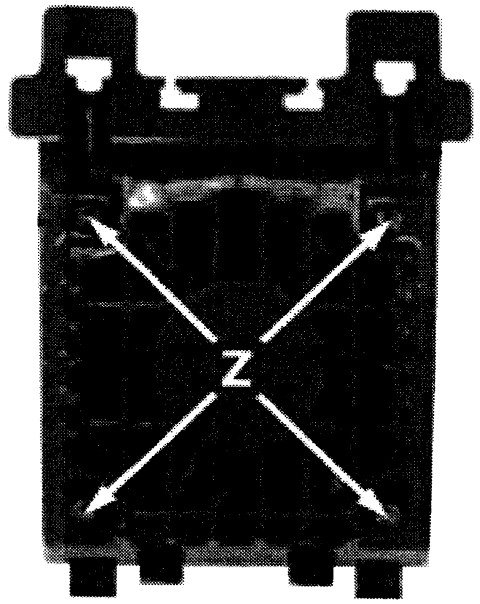


Figure 18

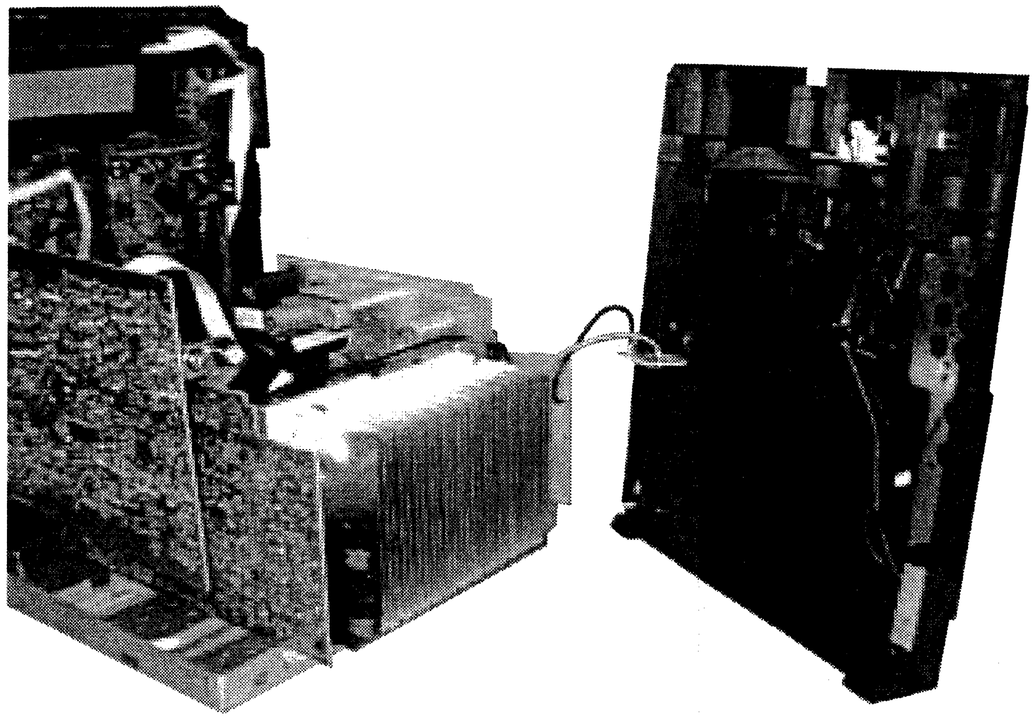


Figure 19

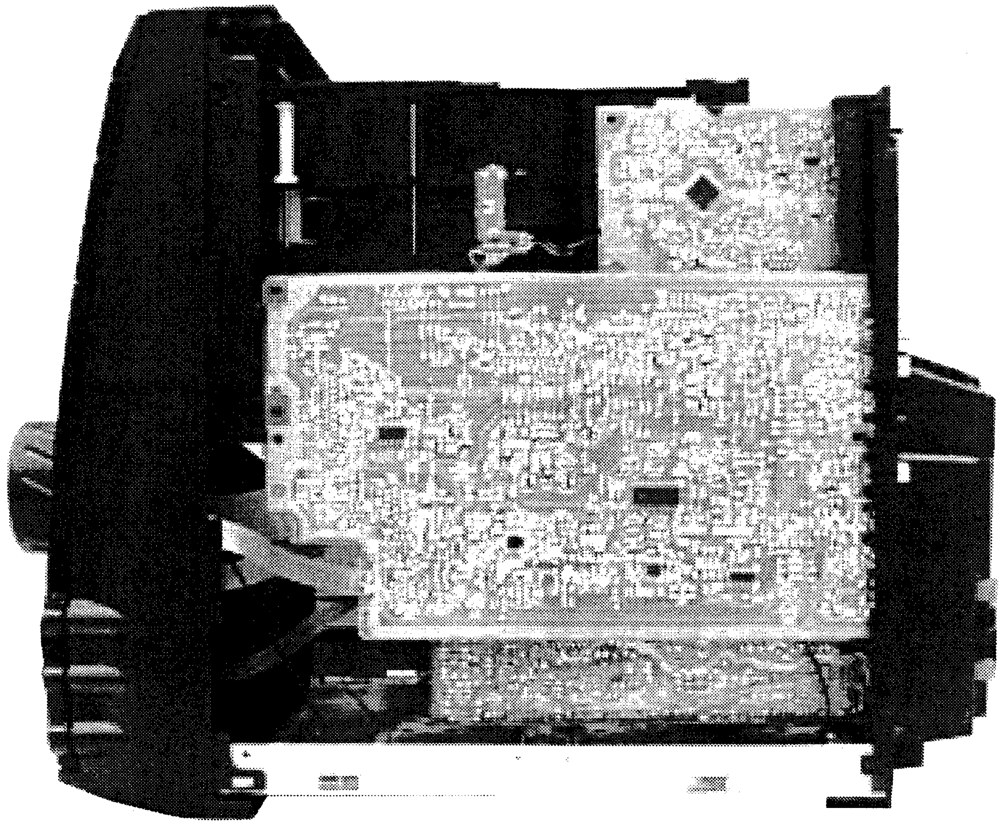
Repair Hints

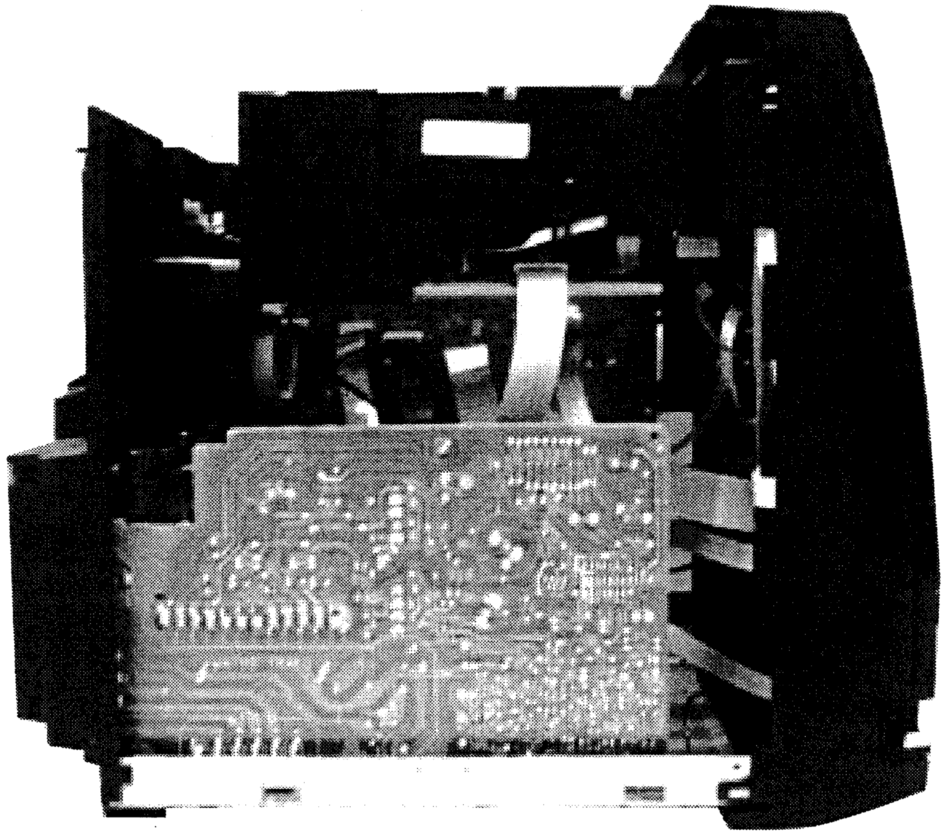
1) During repair it is possible to disconnect the ECO6 Tuner board and/or 5DTC Module completely unless the fault is suspected to be in that area. This will not affect the performance of the rest of the set.

Note: The flex cables are very fragile, care should be taken not to damage them during repair. After repair, be very sure that the flex cables are inserted properly into the flex sockets before encasing, otherwise faults may occurs.

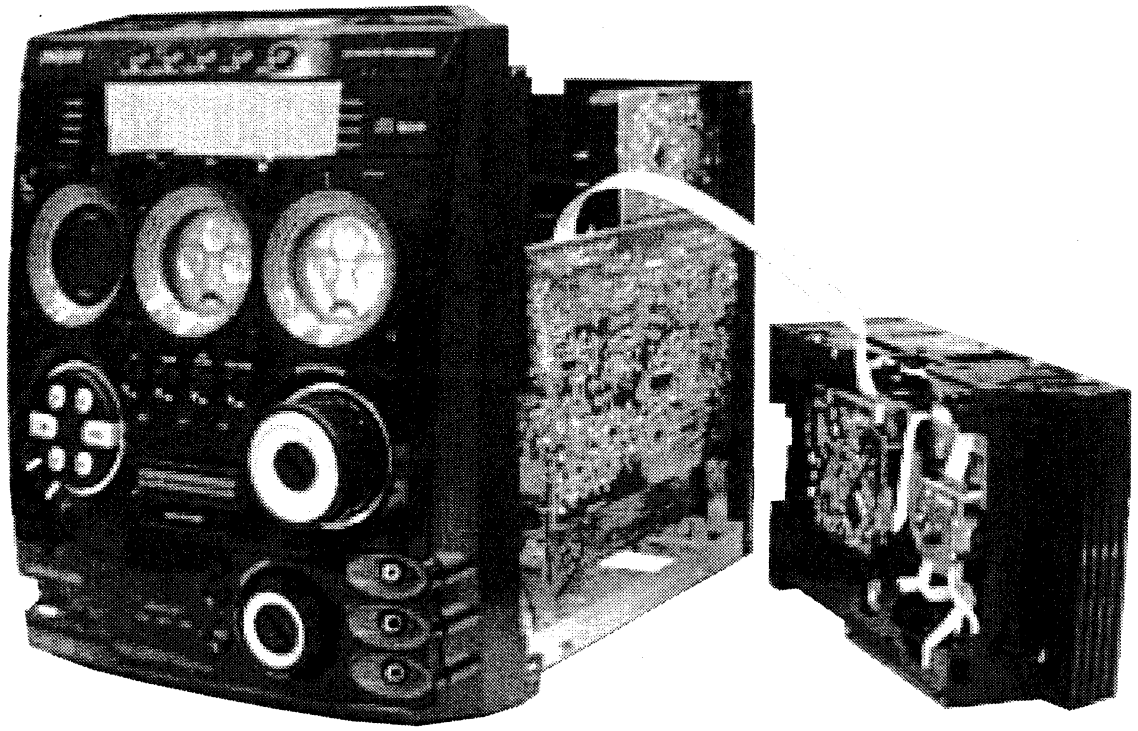
DISMANTLING INSTRUCTIONS

Service position A

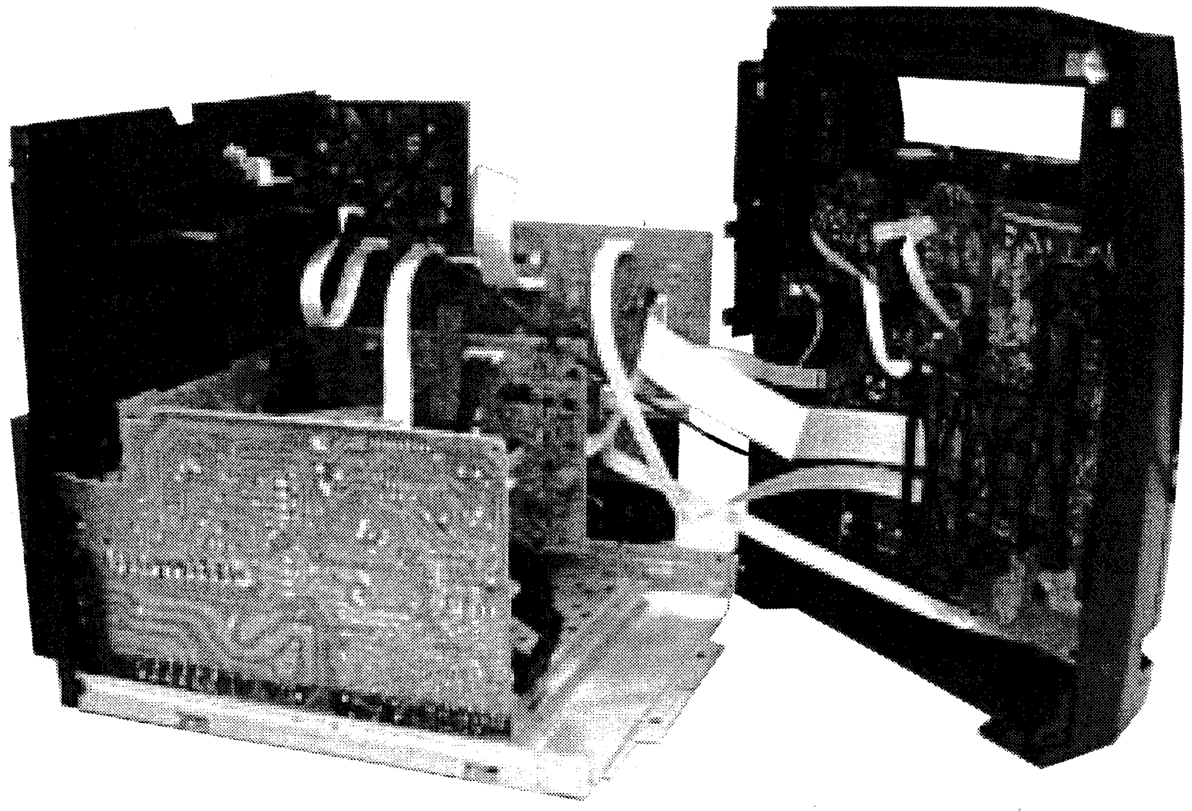




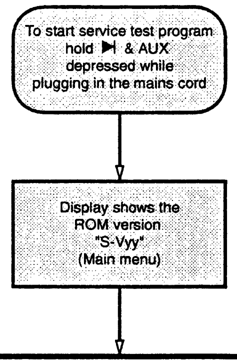
Service position B



Service position C



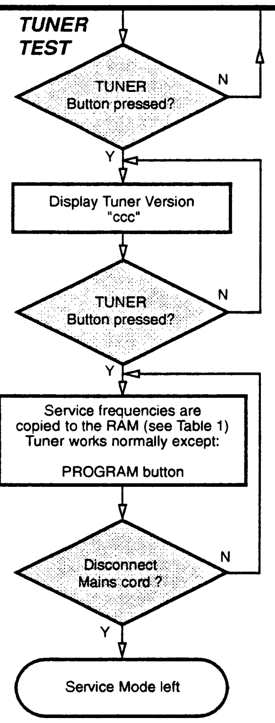
SERVICE TEST PROGRAM

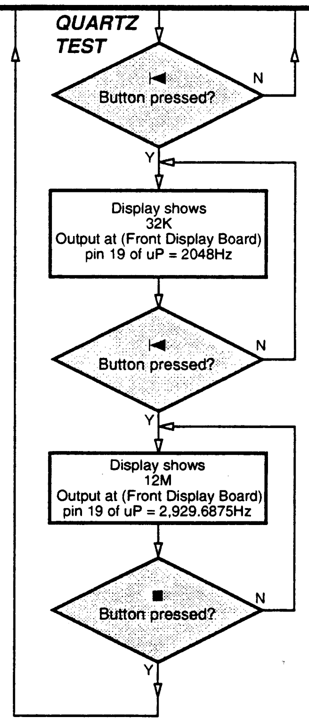

To start service test program hold ▶❙ & AUX depressed while plugging in the mains cord
Display shows the ROM version "S-Vyy" (Main menu)

S refers to Service Mode

V refers to Version

yy refers to Software version number of the uProcessor (counting up from 01 to 99)


TUNER TEST
TUNER Button pressed?
N
Y
Display Tuner Version "ccc"
TUNER Button pressed?
N
Y
Service frequencies are copied to the RAM (see Table 1) Tuner works normally except:
PROGRAM button
Disconnect Mains cord ?
N
Y
Service Mode left


QUARTZ TEST
❙◀ Button pressed?
N
Y
Display shows 32K Output at (Front Display Board) pin 19 of uP = 2048Hz
❙◀ Button pressed?
N
Y
Display shows 12M Output at (Front Display Board) pin 19 of uP = 2,929.6875Hz
■ Button pressed?
N
Y

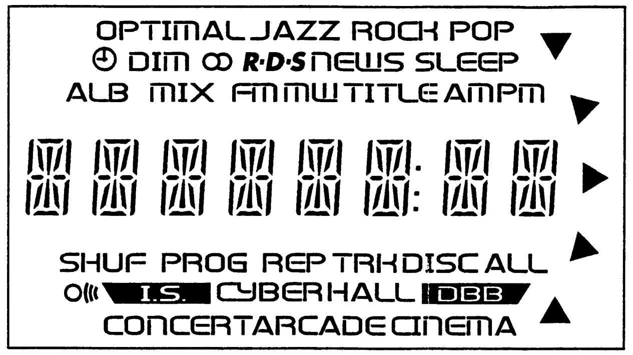

OPTIMAL JAZZ ROCK POP
DIM R·D·S NEWS SLEEP
ALB MIX FM MW TITLE AM PM
SHUF PROG REP TRK DISC ALL
I.S. CYBER HALL DBB
CONCERT ARCADE CINEMA

Figure 1

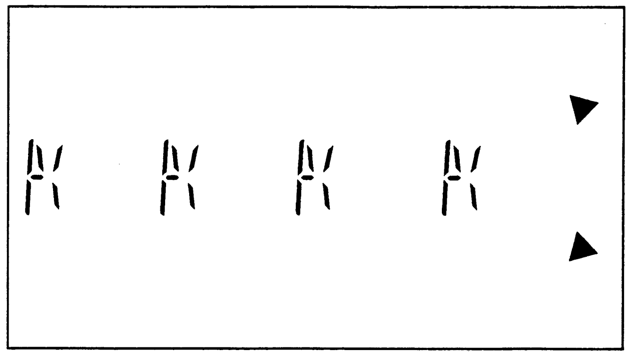
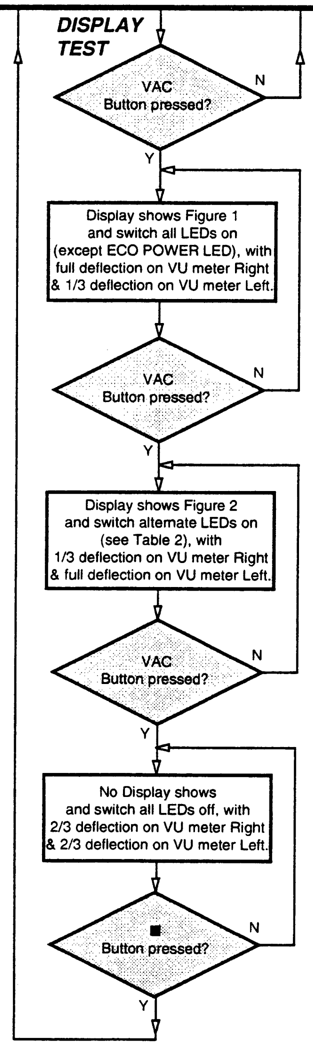
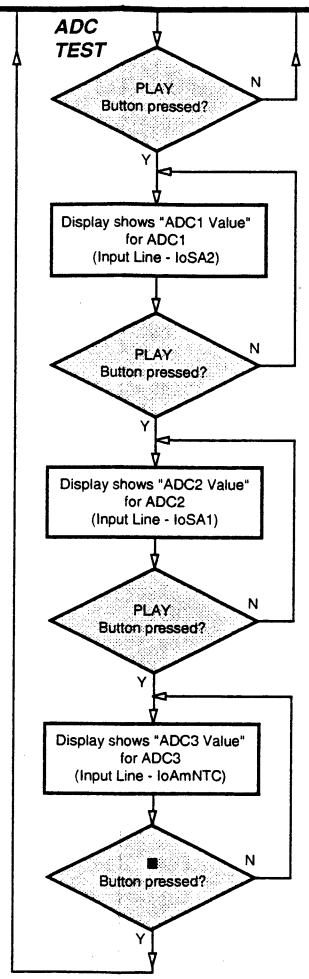


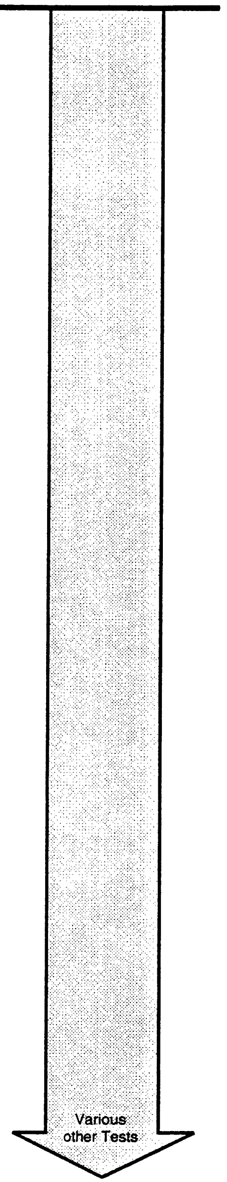
Figure 2


DISPLAY TEST
VAC Button pressed?
N
Y
Display shows Figure 1 and switch all LEDs on (except ECO POWER LED), with full deflection on VU meter Right & 1/3 deflection on VU meter Left.
VAC Button pressed?
N
Y
Display shows Figure 2 and switch alternate LEDs on (see Table 2), with 1/3 deflection on VU meter Right & full deflection on VU meter Left.
VAC Button pressed?
N
Y
No Display shows and switch all LEDs off, with 2/3 deflection on VU meter Right & 2/3 deflection on VU meter Left.
■ Button pressed?
N
Y


ADC TEST
PLAY Button pressed?
N
Y
Display shows "ADC1 Value" for ADC1 (Input Line - IoSA2)
PLAY Button pressed?
N
Y
Display shows "ADC2 Value" for ADC2 (Input Line - IoSA1)
PLAY Button pressed?
N
Y
Display shows "ADC3 Value" for ADC3 (Input Line - IoAmNTC)
■ Button pressed?
N
Y

ADC Test is used for checking the ADC inputs to the microprocessor.

The display shows an ADC value between 0 and 255 for an input signal between 0 and 5V.


Various other Tests

PRESET	Europe "EUR"	USA "USA"	Oversea "OSE"
1	87.5MHz	87.5MHz	87.5MHz
2	108MHz	108MHz	108MHz
3	531kHz	530kHz	531/530kHz*
4	1602kHz	1700kHz	1602/1700kHz*
5	558kHz	560kHz	558/560kHz*
6	1494kHz	1500kHz	1494/1500kHz*
7	153kHz	98MHz	87.5/98MHz*
8	279kHz	87.5MHz	87.5MHz
9	198kHz	87.5MHz	87.5MHz
10	98MHz	87.5MHz	87.5MHz
11	87.5MHz	87.5MHz	98/87.5MHz*

Table 1

Note:
* Depending on the selected grid frequency (9 or 10kHz).
By holding the TUNER and ▶▶ buttons depressed while switching on the Mains supply, the tuning grid frequency is toggled between 9kHz and 10kHz for the Oversea (/21) version.

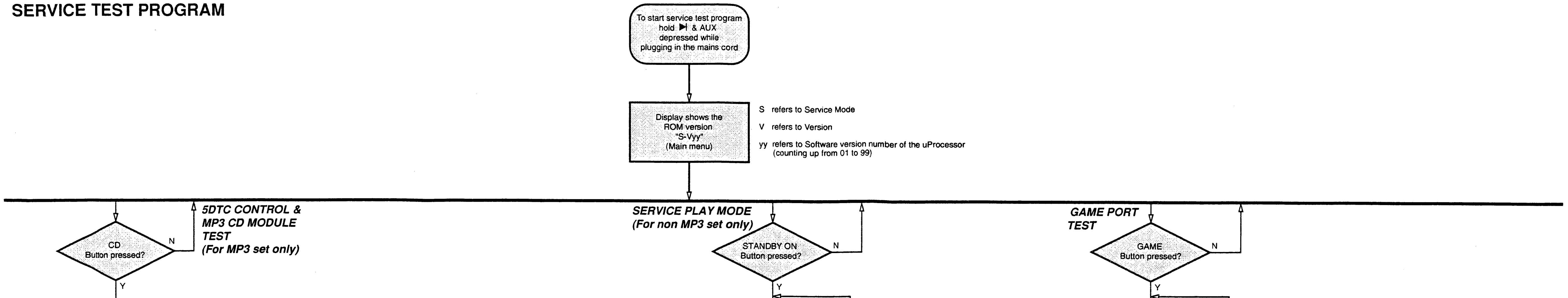
LEDs	FW-C557	FW-C577	FW-C579 FW-M567	FW-C777 FW-M777
CD	-	-	-	OFF
TUNER	-	-	-	ON
AUX / GAME	-	-	-	OFF
USB PC LINK	-	-	-	OFF
DISC 1	-	ON	ON	ON
DISC 2	-	OFF	OFF	OFF
DISC 3	-	ON	ON	ON
DISC 4	-	OFF	OFF	OFF
DISC 5	-	ON	ON	ON
^^ MAX 1 (WOOX 1)	OFF	OFF	OFF	OFF
^^ MAX 2 (WOOX 2)	ON	ON	ON	ON
^^ MAX 3 (WOOX 3)	OFF	OFF	OFF	OFF
SPEED	ON	ON	ON	ON
PUNCH	OFF	OFF	OFF	OFF
BLAST	OFF	OFF	OFF	OFF
USB Indicator	-	OFF	OFF	OFF

Table 2

^^ MAX - FW-C557, FW-C577, FW-C579, FW-M567
WOOX - FW-C777, FW-M777

TEST	*Activated with*	*ACTION*
EEPROM TEST	▶▶ ■ to Exit	A test pattern will be sent to the EEPROM. "PASS" is displayed if the uProcessor read back the test pattern correctly, otherwise "FAIL" will be displayed.
EEPROM FORMAT TEST	◀◀	Load default data. Display shows "NEW" for 1 second. ***Caution! All presets from the customer will be lost!!***
DEMO TOGGLE	^^ MAX (WOOX 2)	Pressing this button will toggle between DEMO ON and DEMO OFF. The DEMO status will scroll once across the Display.
ROTARY ENCODER TEST	Rotary Volume Knob	Display shows value for 2 seconds. Values increases or decreases until Volume Maximum (VOL MAX) or Volume Minimum (VOL MIN) is reached.
MICRONAS FIRMWARE VERSION	USB PC LINK ■ to Exit	To read out the Firmware Version of IC UAC3553 on the USB PC LINK Board. Display shows "Vxxxx" (xxxx = Firmware Version number).
LEAVE SERVICE TEST PROGRAM	Disconnect mains cord	

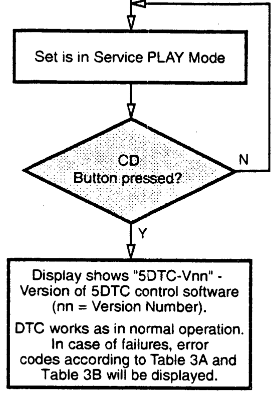
SERVICE TEST PROGRAM


To start service test program hold ▶| & AUX depressed while plugging in the mains cord
Display shows the ROM version "S-Vyy" (Main menu)
S refers to Service Mode
V refers to Version
yy refers to Software version number of the uProcessor (counting up from 01 to 99)
5DTC CONTROL & MP3 CD MODULE TEST (For MP3 set only)
CD Button pressed?
N
Y
SERVICE PLAY MODE (For non MP3 set only)
STANDBY ON Button pressed?
N
Y
GAME PORT TEST
GAME Button pressed?
N
Y

Note : Disc should be available on the tray before entering the Service Test Mode.

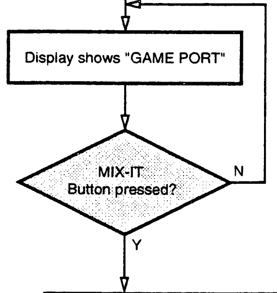
STEP	DISPLAY	MESSAGE		ACTION
		OKAY	ERROR	
1	5DTC-Vnn	-	5DTC-ER	Version of the 5DTC control software (nn = Version Number).
2	MP3CD'02	-	-	Indicates the module used.
**3	TI-Vnn	-	-	Version of the MPEG software (nn = Version Number).
**4	TI BUS	BUS OK	BUS ER	Communication test between the Main uP and CD Module
**5	TI SLD I	-	-	CD SLEDGE MOTOR is moved in.
**6	TI SLD O	-	-	CD SLEDGE MOTOR is moved out.
**7	TI FOC	FOC OK	FOC ER	FOCUS SERVO Test.
				Press ■ to exit

** Choose level by pressing ◄◄ ⇕ ►►


Set is in Service PLAY Mode
CD Button pressed?
N
Y
Display shows "5DTC-Vnn" - Version of 5DTC control software (nn = Version Number).
DTC works as in normal operation. In case of failures, error codes according to Table 3A and Table 3B will be displayed.

The Service Play Mode is intended to detect and identify the failures in the CD Mode.

In this mode the DTC works as in normal operation. The electronics will still function even when an error is detected so that repair activities can be carried out.


Display shows "GAME PORT"
MIX-IT Button pressed?
N
Y

Choose desired background source by pressing button " MIX-IT " ⇕

STEP	DISPLAY (SCROLL ONCE)	ACTION
1	MIX-CD	Select CD as background sound source. Press PLAY to play the track.
2	MIX-TU	Select TUNER as background sound source.
3	MIX-USB	Select PC-LINK (for set with PC-LINK) as background sound source. Press PLAY to play the track.
4	MIX-AUX	Select AUX as background sound source.
5	MIX-OFF	No mixing.
		Disconnect mains cord to exit

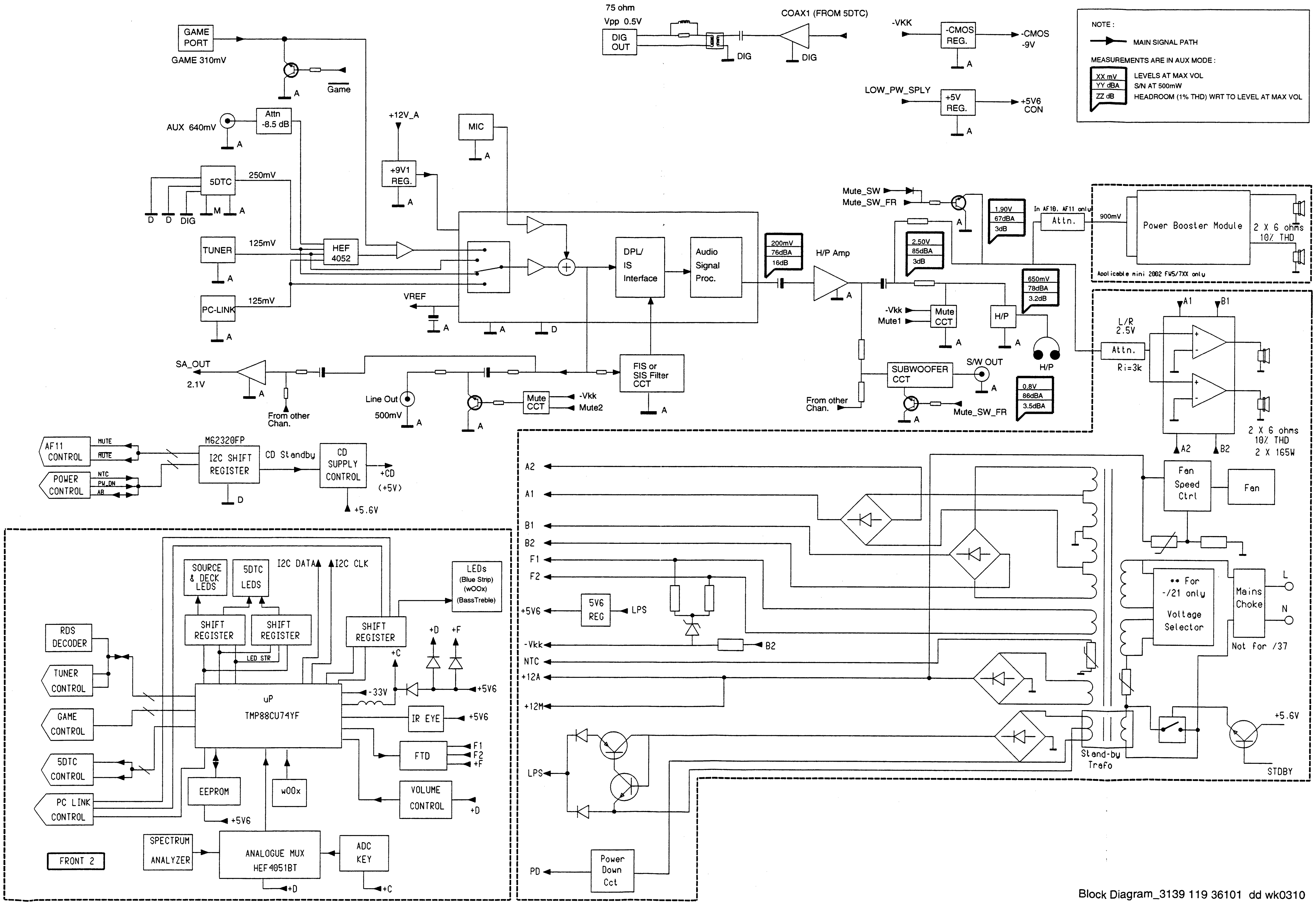
Error code	Error Description
E1000	Focus Error Triggered when the focus cannot be found within a certain time when starting up the CD, or if the focus is lost for more than a certain time during playing of CD.
E1001	Radial Error Triggered when the radial servo is off-track for a certain time during playing of CD.
E1002	Sledge In Error The sledge did not reach its inner position (inner-switch is still close) before approximately 6 seconds have passed by. Inner-switch or sledge motor problem.
E1003	Sledge Out Error The sledge did not come out of its inner position (inner-switch is still open) before approximately 250ms have passed by. Inner-switch or sledge motor problem.
E1005	Jump Error Triggered in normal play when the jump destination could not be found within a certain time.

Table 3A

Error code	Error Description
E1006	Subcode Error Triggered when a new subcode was missing for a certain time during playing of CD.
E1007	PLL Error The Phase Lock Loop could not lock within a certain time.
E1008	Turntable Motor Error Generated when the CD could not reached 75% of speed during start-up within a certain time. Disc motor problem.
E1020	Focus Search Error The focus point has not been found within a certain time.
E1061	The tray could not enter the inside position and is opening again. This can happen if the tray is blocked such that it cannot go fully inside, or if the 5DTC control module is defective and never closes.
E1079	The tray could not reach the outside position and is stopped at its blocked position. This can happen if the tray is blocked such that it cannot go fully outside, or if the 5DTC control module is defective and never opens.

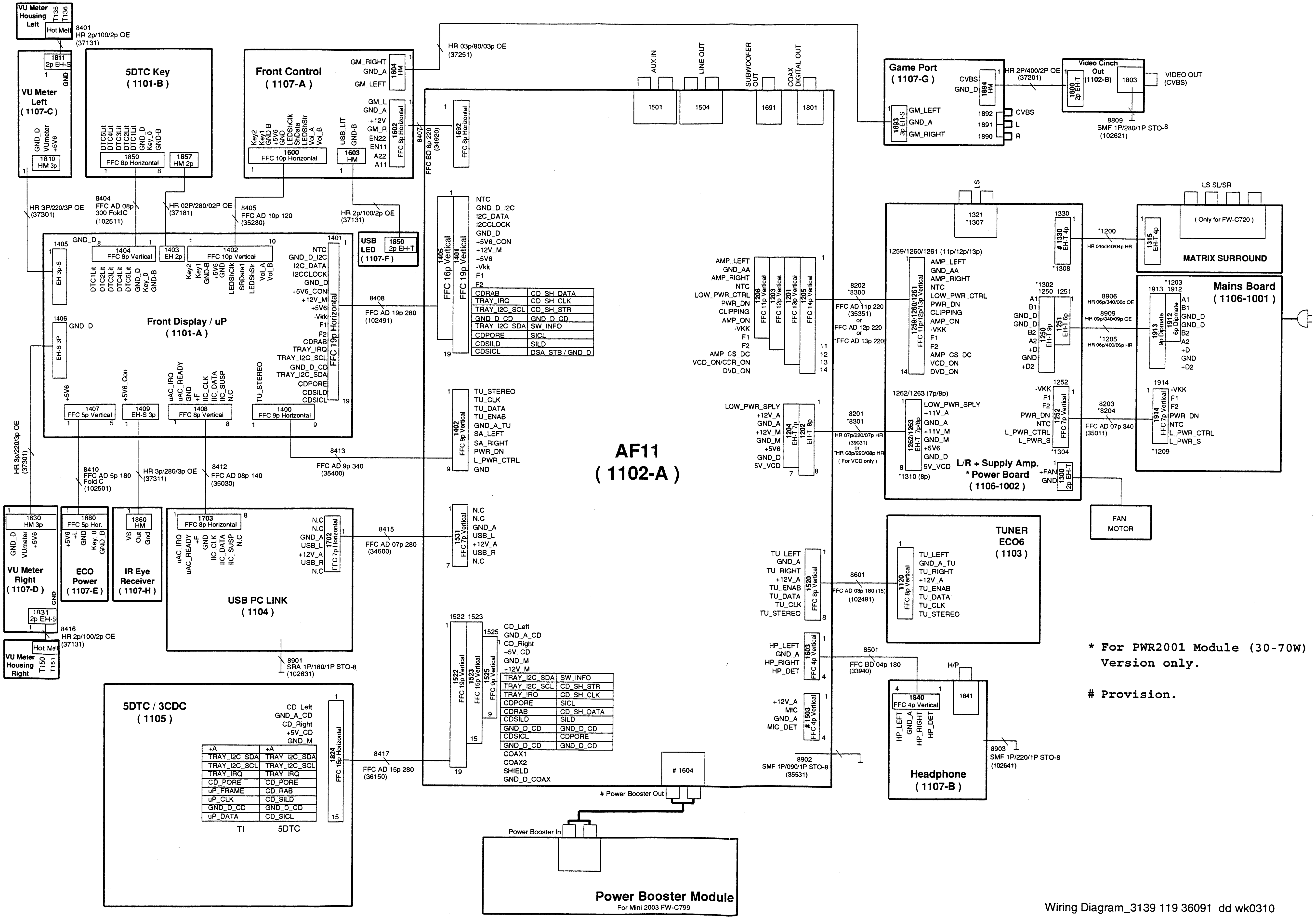
Table 3B

SET BLOCK DIAGRAM


GAME PORT
GAME 310mV
Game
AUX 640mV
Attn -8.5 dB
5DTC
250mV
D
D
DIG
M
A
TUNER
125mV
PC-LINK
125mV
HEF 4052
+12V_A
+9V1 REG.
MIC
VREF
DPL/ IS Interface
Audio Signal Proc.
FIS or SIS Filter CCT
SA_OUT
2.1V
From other Chan.
Line Out
500mV
Mute CCT
-Vkk
Mute2
75 ohm
Vpp 0.5V
DIG OUT
COAX1 (FROM 5DTC)
-VKK
-CMOS REG.
-CMOS
-9V
LOW_PW_SPLY
+5V REG.
+5V6 CON
NOTE :
MAIN SIGNAL PATH
MEASUREMENTS ARE IN AUX MODE :
XX mV
YY dBA
ZZ dB
LEVELS AT MAX VOL
S/N AT 500mW
HEADROOM (1% THD) WRT TO LEVEL AT MAX VOL
200mV
76dBA
16dB
H/P Amp
Mute_SW
Mute_SW_FR
1.90V
67dBA
3dB
2.50V
85dBA
3dB
650mV
78dBA
3.2dB
In AF10, AF11 only
Attn.
900mV
Power Booster Module
2 X 6 ohms
10% THD
Applicable mini 2002 FW5/7XX only
-Vkk
Mute1
Mute CCT
H/P
H/P
SUBWOOFER CCT
S/W OUT
From other Chan.
Mute_SW_FR
0.8V
86dBA
3.5dBA
L/R
2.5V
Attn.
Ri=3k
A1
B1
A2
B2
2 X 6 ohms
10% THD
2 X 165W
AF11 CONTROL
MUTE
MUTE
POWER CONTROL
NTC
PW_DN
AB
M62320FP
I2C SHIFT REGISTER
CD Standby
CD SUPPLY CONTROL
+CD
(+5V)
+5.6V
A2
A1
B1
B2
F1
F2
+5V6
5V6 REG
LPS
-Vkk
B2
NTC
+12A
+12M
LPS
PD
Power Down Cct
Fan Speed Ctrl
Fan
•• For -/21 only
Voltage Selector
Mains Choke
L
N
Not for /37
Stand-by Trafo
+5.6V
STDBY
SOURCE & DECK LEDS
5DTC LEDS
I2C DATA
I2C CLK
LEDs (Blue Strip) (wOOx) (BassTreble)
SHIFT REGISTER
SHIFT REGISTER
LED STR
SHIFT REGISTER
+D
+F
+C
RDS DECODER
TUNER CONTROL
GAME CONTROL
5DTC CONTROL
PC LINK CONTROL
uP
TMP88CU74YF
-33V
+5V6
IR EYE
+5V6
FTD
F1
F2
+F
VOLUME CONTROL
+D
EEPROM
+5V6
wOOx
SPECTRUM ANALYZER
ANALOGUE MUX HEF4051BT
+D
ADC KEY
+C
FRONT 2

Block Diagram_3139 119 36101 dd wk0310

SET WIRING DIAGRAM


VU Meter Housing Left
Hot Melt
8401 HR 2p/100/2p OE (37131)
1811 2p EH-S
VU Meter Left (1107-C)
1810 HM 3p
5DTC Key (1101-B)
1850 FFC 8p Horizontal
1857 HM 2p
Front Control (1107-A)
GM_RIGHT GND_A GM_LEFT
1604 HM
1600 FFC 10p Horizontal
1603 HM
1602 FFC 8p Horizontal
HR 03p/80/03p OE (37251)
8407 FFC BD 8p 220 (34920)
1692 FFC 8p Horizontal
AUX IN
LINE OUT
SUBWOOFER OUT
COAX DIGITAL OUT
1501
1504
1691
1801
Game Port (1107-G)
CVBS GND_D
1894 HM
1893 3p EH-S
GM_LEFT GND_A GM_RIGHT
1892 CVBS
1891 L
1890 R
HR 2P/400/2P OE (37201)
Video Cinch Out (1102-B)
1800 2p EH-T
1803
VIDEO OUT (CVBS)
8809 SMF 1P/280/1P STO-8 (102621)
8404 FFC AD 08p 300 FoldC (102511)
HR 3P/220/3P OE (37301)
HR 02P/280/02P OE (37181)
8405 FFC AD 10p 120 (35280)
HR 2p/100/2p OE (37131)
USB LED (1107-F)
1850 2p EH-T
Front Display / uP (1101-A)
1405 EH 3p-S
1404 FFC 8p Vertical
1403 EH 2p
1402 FFC 10p Vertical
1401 FFC 19p Horizontal
1406 EH-S 3P
1407 FFC 5p Vertical
1409 EH-S 3p
1408 FFC 8p Vertical
1400 FFC 9p Horizontal
8408 FFC AD 19p 280 (102491)
1405 FFC 16p Vertical
1401 FFC 19p Vertical
8413 FFC AD 9p 340 (35400)
1402 FFC 9p Vertical
HR 3p/220/3p OE (37301)
8410 FFC AD 5p 180 Fold C (102501)
HR 3p/280/3p OE (37311)
8412 FFC AD 08p 140 (35030)
1830 HM 3p
VU Meter Right (1107-D)
1831 2p EH-S
1880 FFC 5p Hor.
ECO Power (1107-E)
1860 HM
IR Eye Receiver (1107-H)
1703 FFC 8p Horizontal
1702 FFC 7p Horizontal
USB PC LINK (1104)
8415 FFC AD 07p 280 (34600)
1531 FFC 7p Vertical
8416 HR 2p/100/2p OE (37131)
VU Meter Housing Right
Hot Melt
8901 SRA 1P/180/1P STO-8 (102631)
5DTC / 3CDC (1105)
1824 FFC 15p Horizontal
TI 5DTC
8417 FFC AD 15p 280 (36150)
1522 FFC 19p Vertical
1523 FFC 15p Vertical
1525 FFC 9p Vertical
AF11 (1102-A)
# 1604
# Power Booster Out
Power Booster In
Power Booster Module
For Mini 2003 FW-C799
1206 FFC 11p Vertical
1203 FFC 12p Vertical
1201 FFC 13p Vertical
1205 FFC 14p Vertical
8202 *8300 FFC AD 11p 220 (35351) or FFC AD 12p 220 or *FFC AD 13p 220
1204 EH-T 7p
1202 EH-T 8p
8201 *8301 HR 07p/220/07p HR (39031) or *HR 08p/220/08p HR (For VCD only)
1520 FFC 8p Vertical
8601 FFC AD 08p 180 (15) (102481)
1603 FFC 4p Vertical
8501 FFC BD 04p 180 (33940)
# 1503 FFC 4p Vertical
8902 SMF 1P/090/1P STO-8 (35531)
LS
1321 *1307
1330 # 1330 EH-T 4p
*1308
*1200 HR 04p/340/04p HR
1315 EH-T 4p
LS SL/SR
(Only for FW-C720)
MATRIX SURROUND
1259/1260/1261 (11p/12p/13p)
1259/1260/1261 FFC 11p/12p/13p Vertical
*1302 1250 1251
1250 EH-T 9p
1251 EH-T 6p
8906 HR 06p/340/06p OE
8909 HR 09p/340/09p OE
*1205 HR 06p/400/06p HR
*1203 1913 1912
1913 9p Dipmate
1912 6p Dipmate
Mains Board (1106-1001)
1262/1263 (7p/8p)
1262/1263 EH-T 7p/8p
1252 FFC 7p Vertical
*1304
8203 *8204 FFC AD 07p 340 (35011)
1914 FFC 7p Vertical
*1209
*1310 (8p)
L/R + Supply Amp. * Power Board (1106-1002)
1300 2p EH-T
+FAN GND
FAN MOTOR
TUNER ECO6 (1103)
1120 FFC 8p Vertical
H/P
1840 FFC 4p Vertical
1841
Headphone (1107-B)
8903 SMF 1P/220/1P STO-8 (102641)

* For PWR2001 Module (30-70W) Version only.

# Provision.

Wiring Diagram_3139 119 36091 dd wk0310

FRONT CONTROL BOARD

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IR Eye part - Layout & Circuit diagram 5-8
USB LED part - Layout & Circuit diagram 5-8
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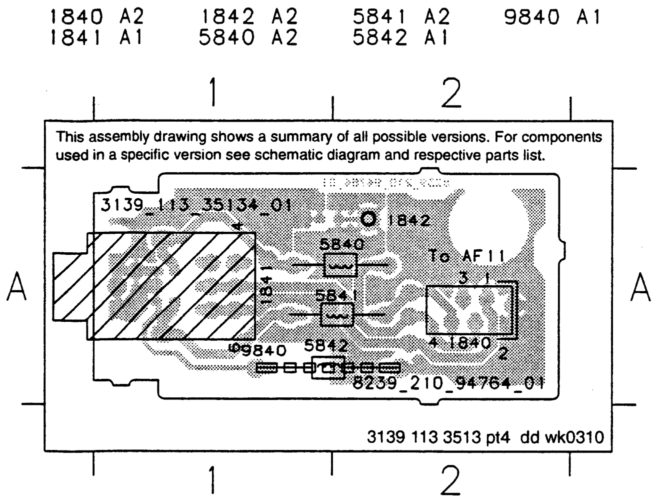
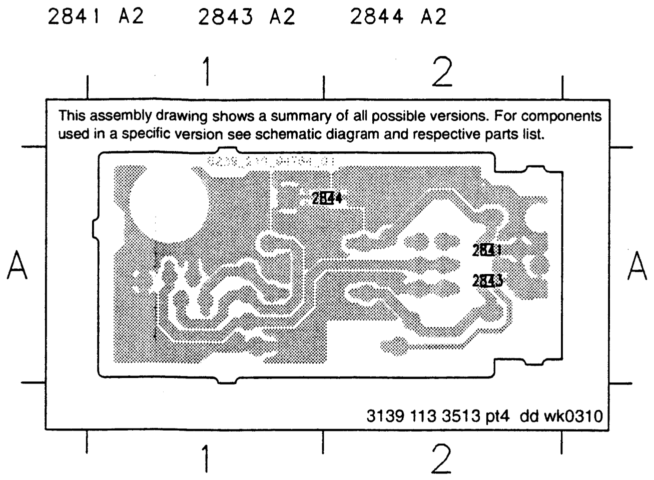
HEADPHONE BOARD - COMPONENT LAYOUT


1840 A2
1841 A1
1842 A2
5840 A2
5841 A2
5842 A1
9840 A1
1
2
A
3139_113_35134_01
1842
5840
To AF11
3 1
1841
5841
9840
5842
4 1840 2
8239_210_94764_01
3139 113 3513 pt4 dd wk0310

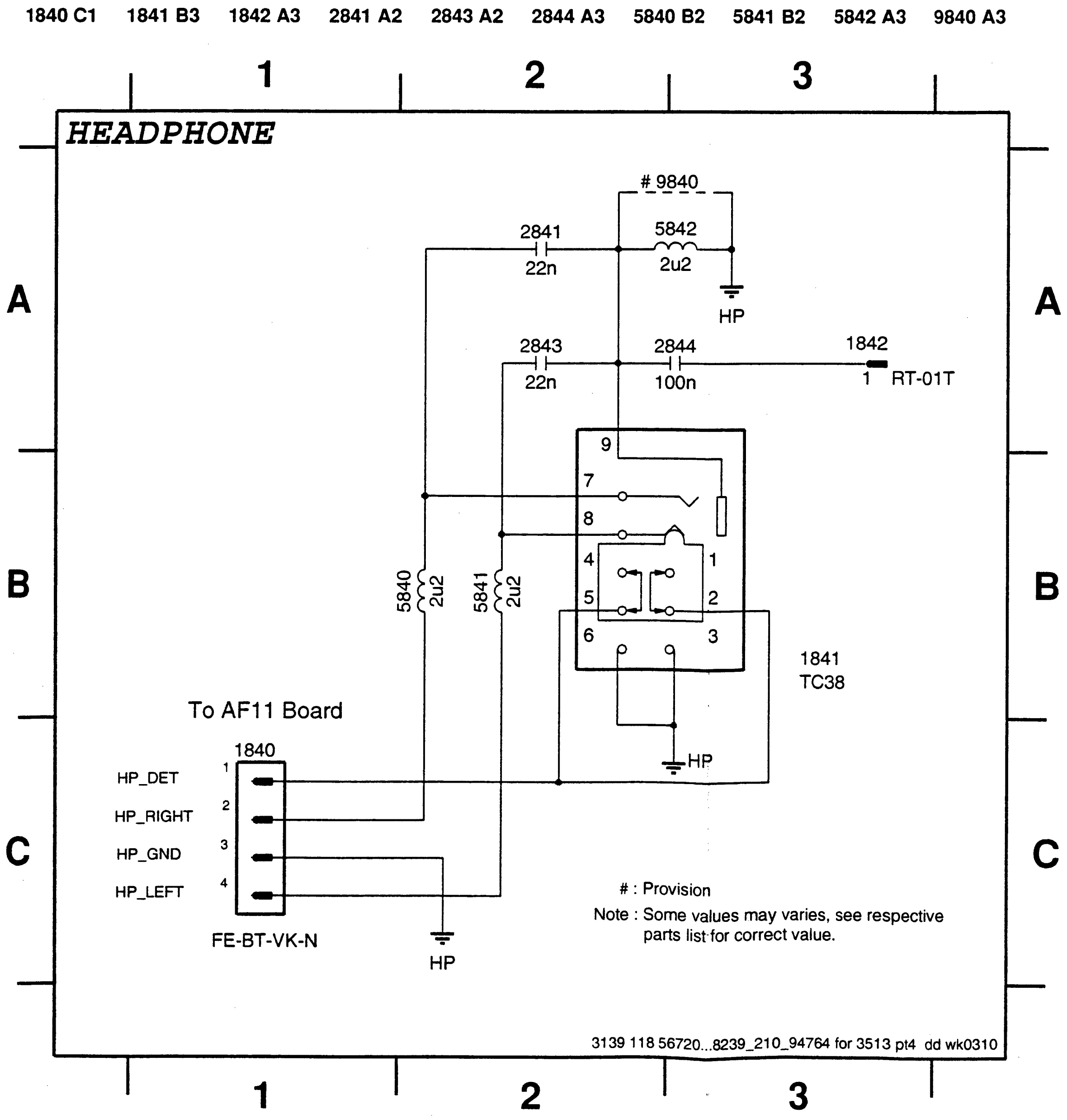
This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

HEADPHONE BOARD - CHIP LAYOUT


2841 A2
2843 A2
2844 A2
1
2
A
2844
2841
2843
3139 113 3513 pt4 dd wk0310

This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

HEADPHONE BOARD - CIRCUIT DIAGRAM

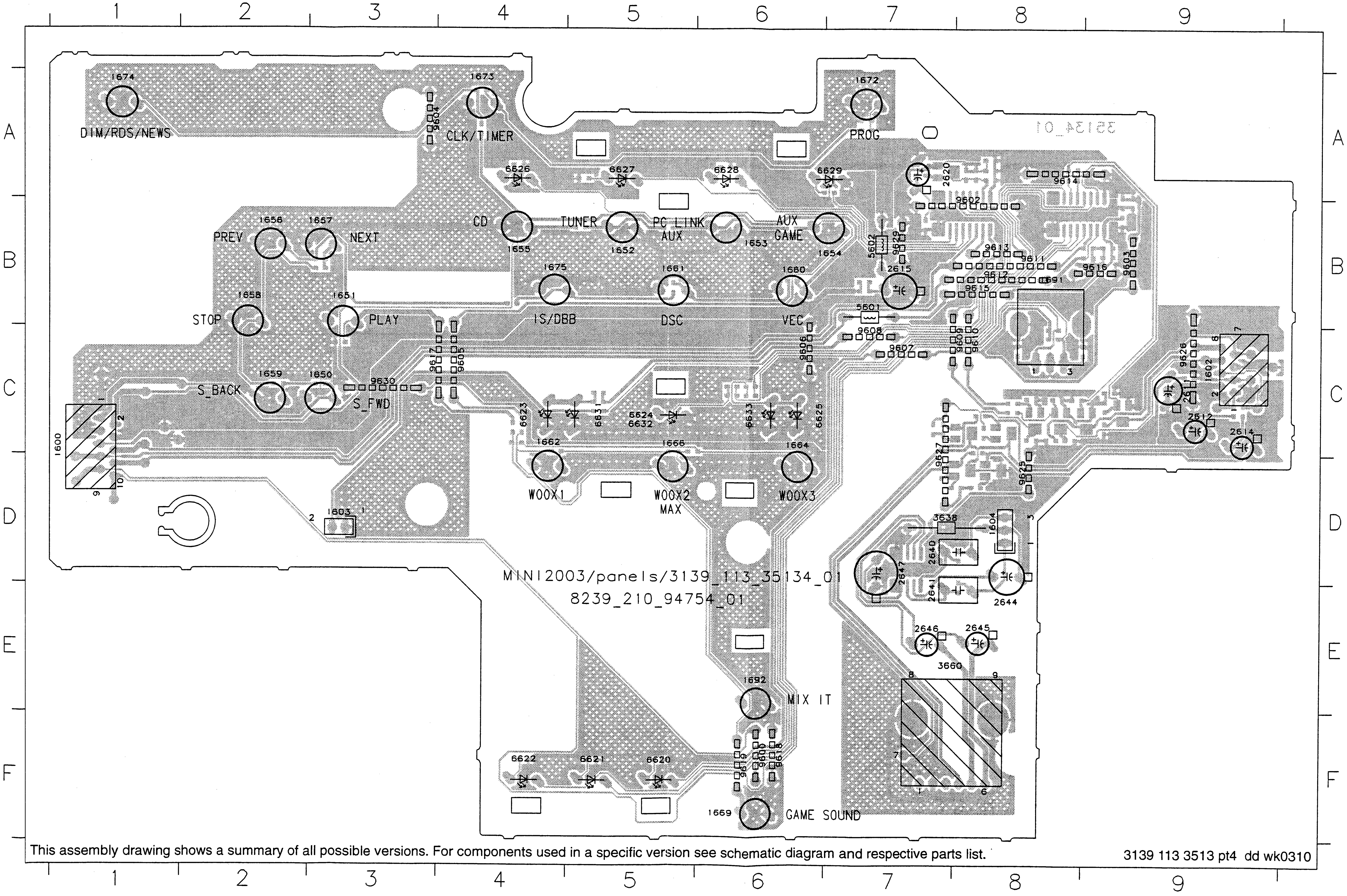

1840 C1
1841 B3
1842 A3
2841 A2
2843 A2
2844 A3
5840 B2
5841 B2
5842 A3
9840 A3
1
2
3
A
B
C
HEADPHONE
# 9840
2841
22n
5842
2u2
HP
2843
22n
2844
100n
1842
1
RT-01T
9
7
8
4
5
6
1
2
3
5840
2u2
5841
2u2
1841
TC38
HP
To AF11 Board
1840
HP_DET
HP_RIGHT
HP_GND
HP_LEFT
FE-BT-VK-N
HP
3139 118 56720...8239_210_94764 for 3513 pt4 dd wk0310

: Provision

Note : Some values may varies, see respective parts list for correct value.

CONTROL BOARD - COMPONENT LAYOUT

1600	C1
1602	C9
1603	D3
1604	D8
1650	C3
1651	B3
1652	B5
1653	B6
1654	B7
1655	B4
1656	B2
1657	B3
1658	B2
1659	C2
1660	B6
1661	B5
1662	C4
1664	C6
1666	C5
1669	F6
1672	A7
1673	A4
1674	A1
1675	B4
1691	B8
1692	E6
2611	C9
2612	C9
2614	C9
2615	B7
2620	A7
2640	D7
2641	E7
2644	E8
2645	E8
2646	E7
2647	D7
3638	D7
3660	E7
5601	B7
5602	B7
6620	F5
6621	F5
6622	F4
6623	C4
6624	C5
6625	C6
6626	A4
6627	A5
6628	A6
6629	A7
6631	C5
6632	C5
6633	C6
9600	F6
9602	B8
9603	B9
9604	A3
9605	C4
9606	C6
9607	C7
9608	C7
9609	C8
9610	C8
9611	B8
9612	B8
9613	B8
9614	A8
9615	B8
9616	B9
9617	C3
9618	F6
9619	F6
9625	D8
9626	C9
9627	C7
9629	B7
9630	C3

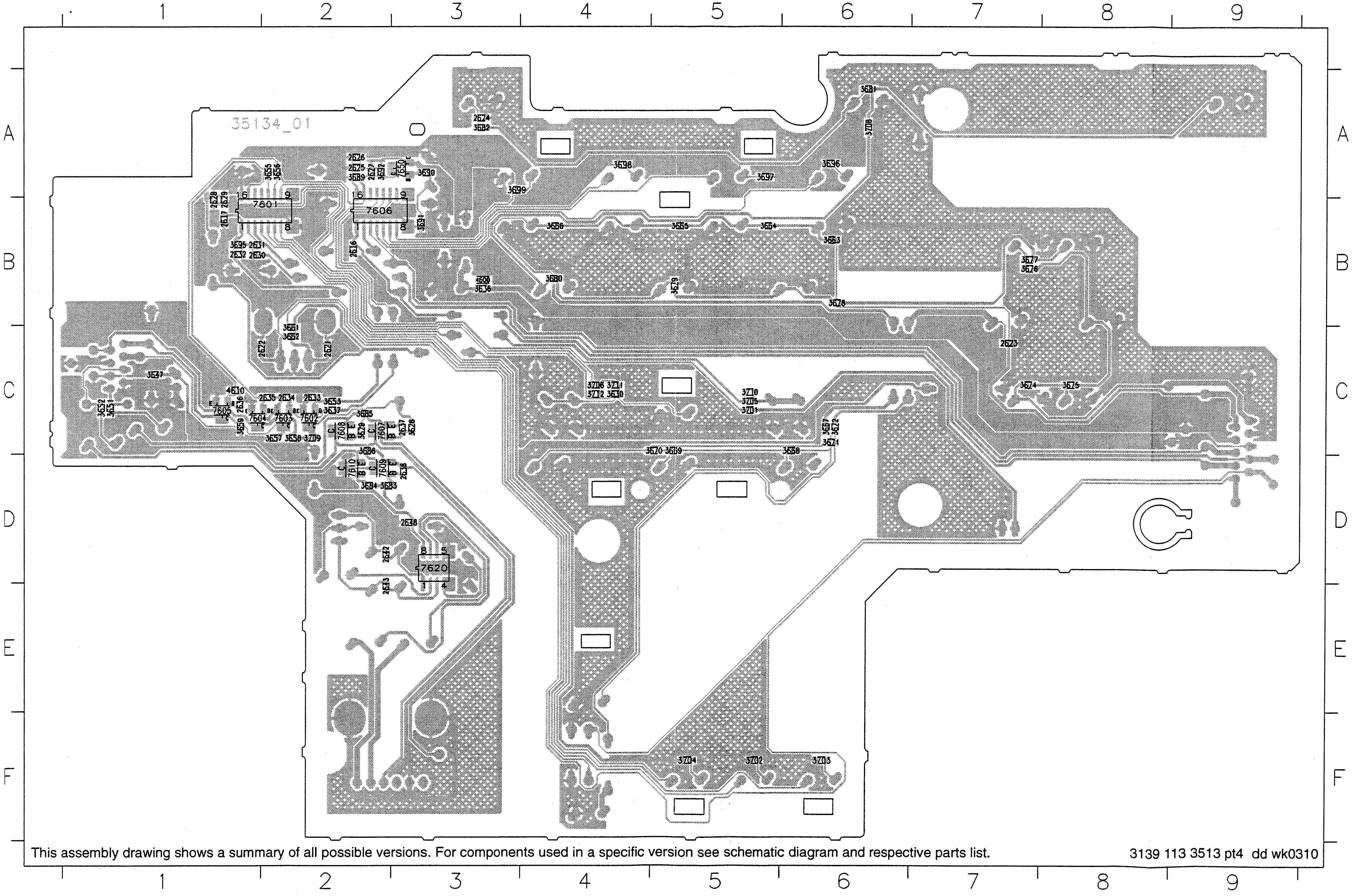

1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
DIM/RDS/NEWS
CLK/TIMER
PROG
35134_01
CD
TUNER
PC LINK
AUX
AUX
GAME
PREV
NEXT
STOP
PLAY
IS/DBB
DSC
VEC
S_BACK
S_FWD
WOOX1
WOOX2
MAX
WOOX3
MIX IT
GAME SOUND
MINI2003/panels/3139_113_35134_01
8239_210_94754_01

This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

3139 113 3513 pt4 dd wk0310

CONTROL BOARD - CHIP LAYOUT

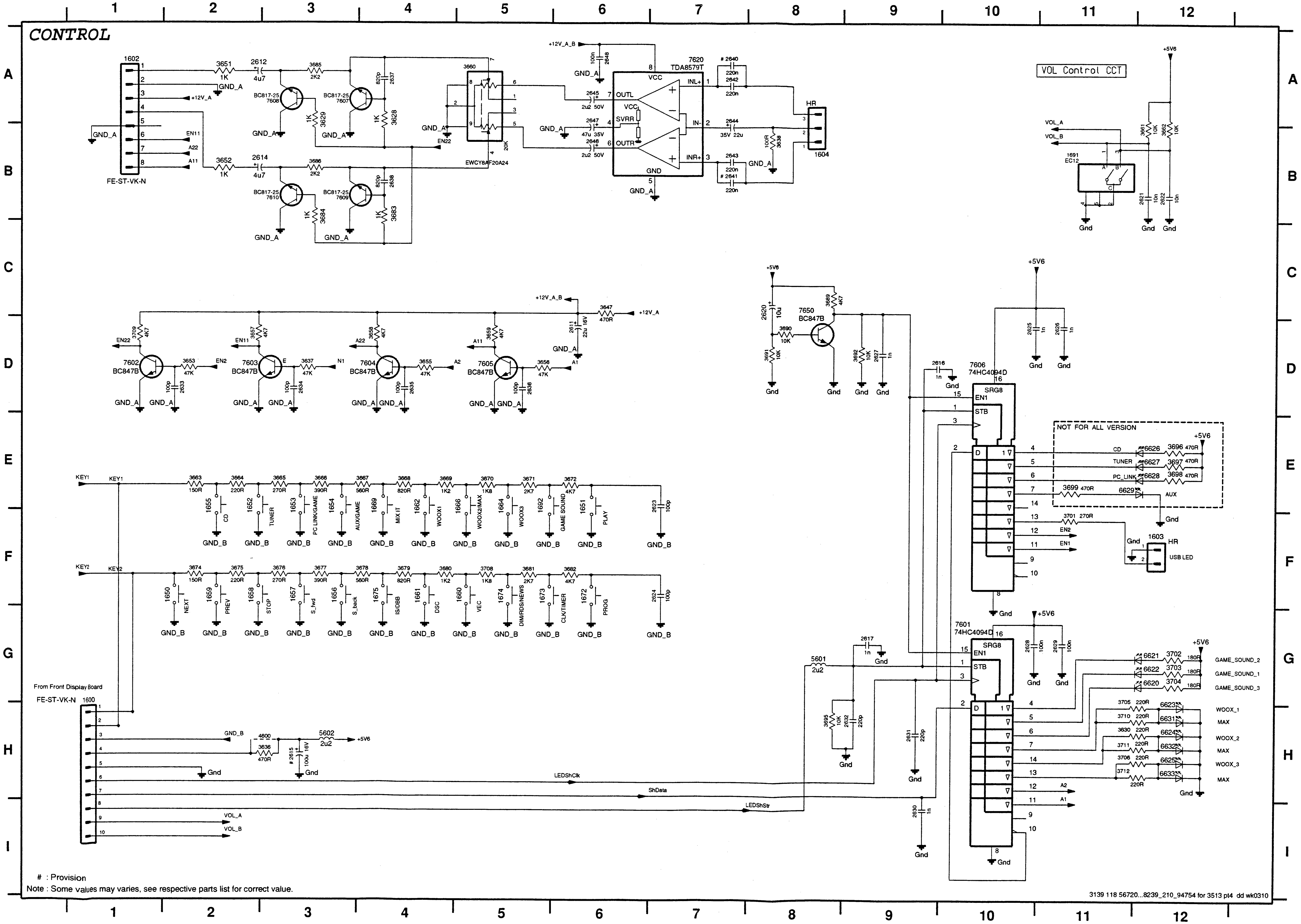
2616	B2	2625	A2	2631	B1	2637	C3	3629	C2	3652	C1	3659	C1	3666	B4	3672	C6	3679	B5	3685	C2	3695	B1	3702	F5	3709	C2	7601	B2	7607	C2
2617	B1	2626	A2	2632	B1	2638	D3	3630	C4	3653	C2	3661	C2	3667	C6	3674	C7	3680	B4	3686	C2	3696	A6	3703	F6	3710	C5	7602	C2	7608	C2
2621	C2	2627	A2	2633	C2	2642	D2	3636	B3	3655	A2	3662	C2	3668	C6	3675	C8	3681	A6	3689	A2	3697	A5	3704	F5	3711	C4	7603	C2	7609	D2
2622	C1	2628	B1	2634	C2	2643	E2	3637	C2	3656	A2	3663	B6	3669	C5	3676	B7	3682	A3	3690	A3	3698	A4	3705	C5	3712	C4	7604	C1	7610	D2
2623	C7	2629	B1	2635	C2	2648	D3	3647	C1	3657	C2	3664	B5	3670	C5	3677	B7	3683	D2	3691	B3	3699	A3	3706	C4	4600	B3	7605	C1	7620	D3
2624	A3	2630	B1	2636	C1	3628	C3	3651	C1	3658	C2	3665	B5	3671	C6	3678	B6	3684	D2	3692	A2	3701	C5	3708	A6	4610	C1	7606	B2	7650	A3


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
35134_01
7601
7606
7620
7605
7604
7603
7602
7608
7607
7610
7609
7650
4610
3681
3708
3696
3697
3698
3699
3666
3655
3664
3683
3677
3676
3680
3679
3678
2623
3674
3675
3710
3705
3701
3687
3672
3671
3668
3670
3669
3706
3711
3712
3686
2624
3682
2626
2625
3689
2627
3692
3630
3656
3655
2628
2629
2617
2631
2632
2630
2616
3636
3651
3652
2622
2621
3647
2635
2634
2633
3653
3637
3685
3657
3658
3709
3684
3683
2648
2642
2643
3704
3702
3703

This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

3139 113 3513 pt4 dd wk0310

CONTROL BOARD - CIRCUIT DIAGRAM


CONTROL
1602
FE-ST-VK-N
GND_A
+12V_A
EN11
A22
A11
3651 1K
3652 1K
2612 4u7
2614 4u7
3685 2K2
3686 2K2
BC817-25 7608
BC817-25 7607
BC817-25 7610
BC817-25 7609
3629 1K
3628 1K
3684 1K
3683 1K
2637 820p
2638 820p
3660
EWCY8AF20A24
20K
EN22
+12V_A_B
2648 100n
7620
TDA8579T
VCC
OUTL
VCC
SVRR
OUTR
GND
INL+
IN-
INR+
2645 2u2 50V
2647 47u 35V
2646 2u2 50V
# 2640 220n
2642 220n
2644 35V 22u
2643 220n
# 2641 220n
3638 100R
HR
1604
VOL Control CCT
+5V6
VOL_A
VOL_B
1691
EC12
3661 10K
3662 10K
2621 10n
2622 10n
Gnd
3647 470R
+12V_A
2611 22u 16V
3709 4K7
3657 4K7
3658 4K7
3659 4K7
7602 BC847B
7603 BC847B
7604 BC847B
7605 BC847B
3653 47K
3637 47K
3655 47K
3656 47K
2633 100p
2634 100p
2635 100p
2636 100p
EN2
N1
A2
A1
2620 10u
3689 4K7
7650 BC847B
3690 10K
3691 10K
3692 10K
2627 1n
2625 1n
2626 1n
2616 1n
7606
74HC4094D
SRG8
EN1
STB
NOT FOR ALL VERSION
CD
TUNER
PC_LINK
AUX
6626
6627
6628
6629
3696 470R
3697 470R
3698 470R
3699 470R
3701 270R
1603
USB LED
KEY1
KEY2
3663 150R
3664 220R
3665 270R
3666 390R
3667 560R
3668 820R
3669 1K2
3670 1K8
3671 2K7
3672 4K7
1655 CD
1652 TUNER
1653 PC LINK/GAME
1654 AUX/GAME
1669 MIX IT
1662 WOOX1
1666 WOOX2/MAX
1664 WOOX3
1692 GAME SOUND
1651 PLAY
2623 100p
GND_B
3674 150R
3675 220R
3676 270R
3677 390R
3678 560R
3679 820R
3680 1K2
3708 1K8
3681 2K7
3682 4K7
1650 NEXT
1659 PREV
1658 STOP
1657 S_fwd
1656 S_back
1675 IS/DBB
1661 DSC
1660 VEC
1674 DIM/RDS/NEWS
1673 CLK/TIMER
1672 PROG
2624 100p
From Front Display Board
FE-ST-VK-N 1600
4600
3636 470R
# 2615 100u 16V
5602 2u2
5601 2u2
2617 1n
3695 10K
2632 220p
2631 220p
2630 1n
LEDShClk
ShData
LEDShStr
7601
74HC4094D
2628 100n
2629 100n
6621
6622
6620
3702 180R
3703 180R
3704 180R
GAME_SOUND_2
GAME_SOUND_1
GAME_SOUND_3
3705 220R
3710 220R
3630 220R
3711 220R
3706 220R
3712 220R
6623
6631
6624
6632
6625
6633
WOOX_1
MAX
WOOX_2
MAX
WOOX_3
MAX

: Provision

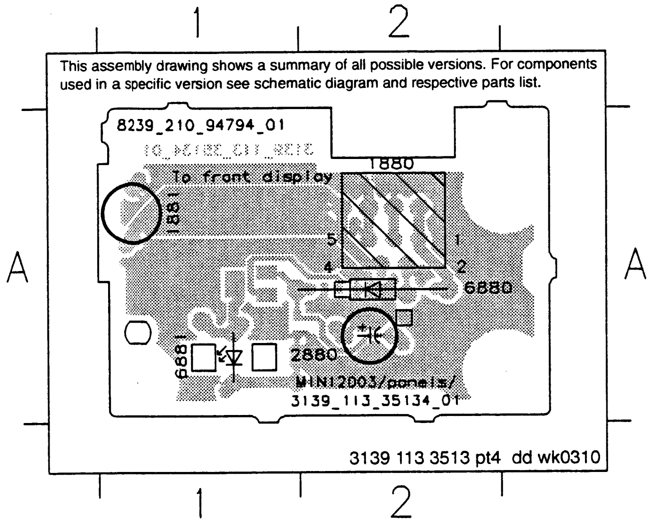
Note : Some values may varies, see respective parts list for correct value.

3139 118 56720...8239_210_94754 for 3513 pt4 dd wk0310

1600	H1
1602	A1
1603	F12
1604	B8
1650	F2
1651	E6
1652	E2
1653	E3
1654	F3
1655	F2
1656	F3
1657	F3
1658	F2
1659	F2
1660	F5
1661	F4
1662	E4
1664	F5
1666	F5
1669	E4
1672	F6
1673	F5
1674	F5
1675	F4
1691	B11
1692	E5
2611	D6
2612	A2
2614	B2
2615	H3
2616	D9
2617	G9
2620	C8
2621	B12
2622	B12
2623	E7
2624	F7
2625	D10
2626	D11
2627	D9
2628	G10
2629	G11
2630	I9
2631	H9
2632	H9
2633	D2
2634	D3
2635	D4
2636	D5
2637	A4
2638	B4
2640	A7
2641	B7
2642	A7
2643	B7
2644	A7
2645	A6
2646	B6
2647	A6
2648	A6
3628	A4
3629	A3
3630	H11
3636	H3
3637	D3
3638	B8
3647	C6
3651	A2
3652	B2
3653	D2
3655	D4
3656	D5
3657	D2
3658	D4
3659	D5
3660	A5
3661	B12
3662	B12
3663	E2
3664	E2
3665	E3
3666	E3
3667	E4
3668	E4
3669	E4
3670	E5
3671	E5
3672	E6
3674	F2
3675	F2
3676	F3
3677	F3
3678	F4
3679	F4
3680	F4
3681	F5
3682	F6
3683	B4
3684	B3
3685	A3
3686	B3
3689	C8
3690	D8
3691	D8
3692	D9
3695	H8
3696	E12
3697	E12
3698	E12
3699	E11
3701	F11
3702	G12
3703	G12
3704	G12
3705	G11
3706	H11
3708	F5
3709	D1
3710	H11
3711	H11
3712	H11
4600	H3
5601	G8
5602	H3
6620	G12
6621	G12
6622	G12
6623	H12
6624	H12
6625	H12
6626	E12
6627	E12
6628	E12
6629	E11
6631	H12
6632	H12
6633	H12
7601	G10
7602	D1
7603	D2
7604	D4
7605	D5
7606	D10
7607	A3
7608	A3
7609	B3
7610	B3
7620	A7
7650	C8

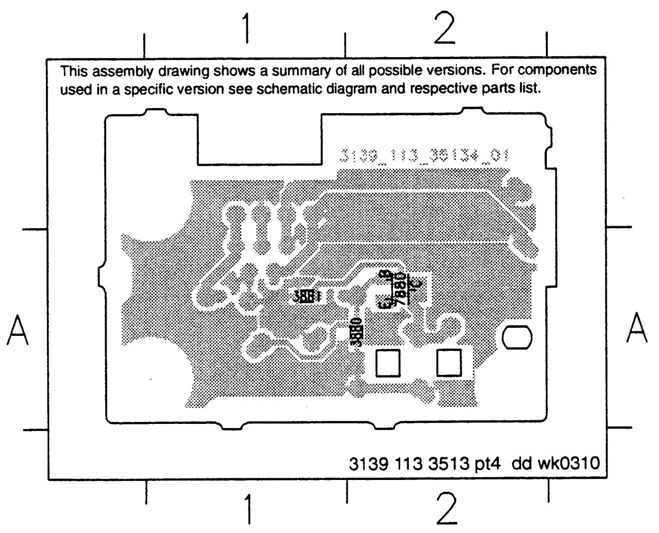
ECO POWER BOARD - COMPONENT LAYOUT

1880	A2	2880	A2	6881	A1
1881	A1	6880	A2		


1
2
A
This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.
8239_210_94794_01
1880
To front display
1881
6880
2880
6881
MINI2003/panels/
3139_113_35134_01
3139 113 3513 pt4 dd wk0310

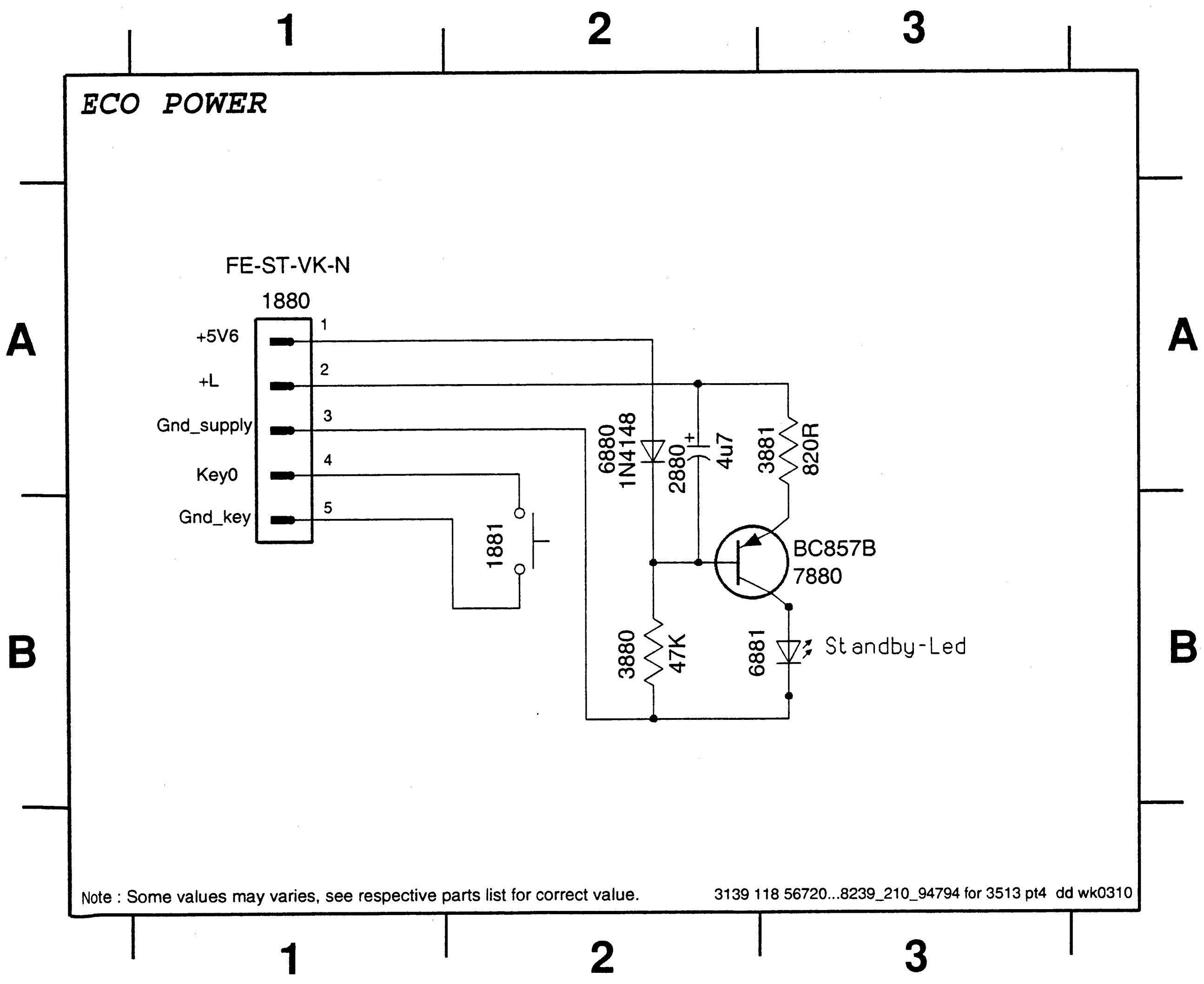
ECO POWER BOARD - CHIP LAYOUT

3880	A2	3881	A1	7880	A2


1
2
A
This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.
3139_113_35134_01
3881
3880
7880
3139 113 3513 pt4 dd wk0310

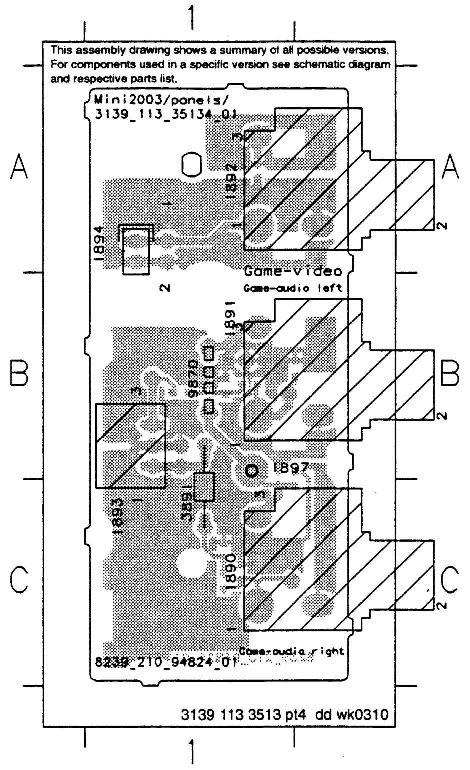
ECO POWER BOARD - CIRCUIT DIAGRAM

1880 A1	**1881 B2**	**2880 A2**	**3880 B2**	**3881 A3**	**6880 A2**	**6881 B2**	**7880 B3**


1
2
3
A
B
ECO POWER
FE-ST-VK-N
1880
+5V6
+L
Gnd_supply
Key0
Gnd_key
6880
1N4148
2880
4u7
3881
820R
BC857B
7880
1881
3880
47K
6881
Standby-Led
Note : Some values may varies, see respective parts list for correct value.
3139 118 56720...8239_210_94794 for 3513 pt4 dd wk0310

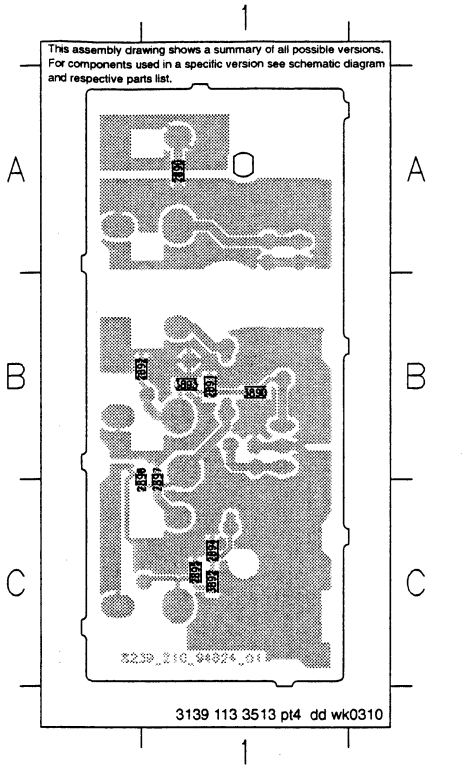
GAME PORT BOARD - COMPONENT LAYOUT

1890	C1	1893	C1	3891	C1
1891	B1	1894	A1	9870	B1
1892	A1	1897	B1		


1
A
B
C
This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.
Mini2003/panels/
3139_113_35134_01
1892
1894
Game-video
Game-audio left
1891
9870
1897
1893
3891
1890
Game-audio right
8239_210_94824_01
3139 113 3513 pt4 dd wk0310

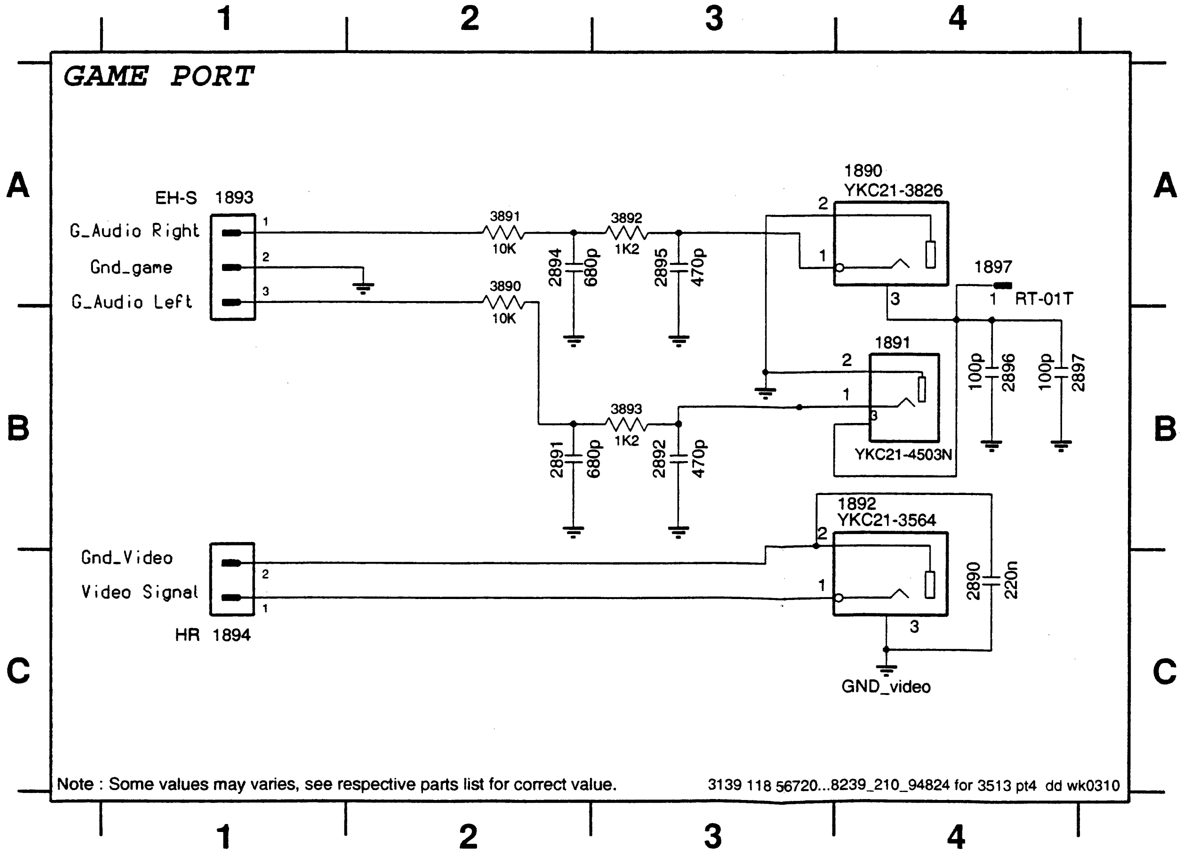
GAME PORT BOARD - CHIP LAYOUT

2890	A1	2895	C1	3892	C1
2891	B1	2896	B1	3893	B1
2892	B1	2897	B1		
2894	C1	3890	B1		


1
A
B
C
This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.
8239_210_94824_01
3139 113 3513 pt4 dd wk0310

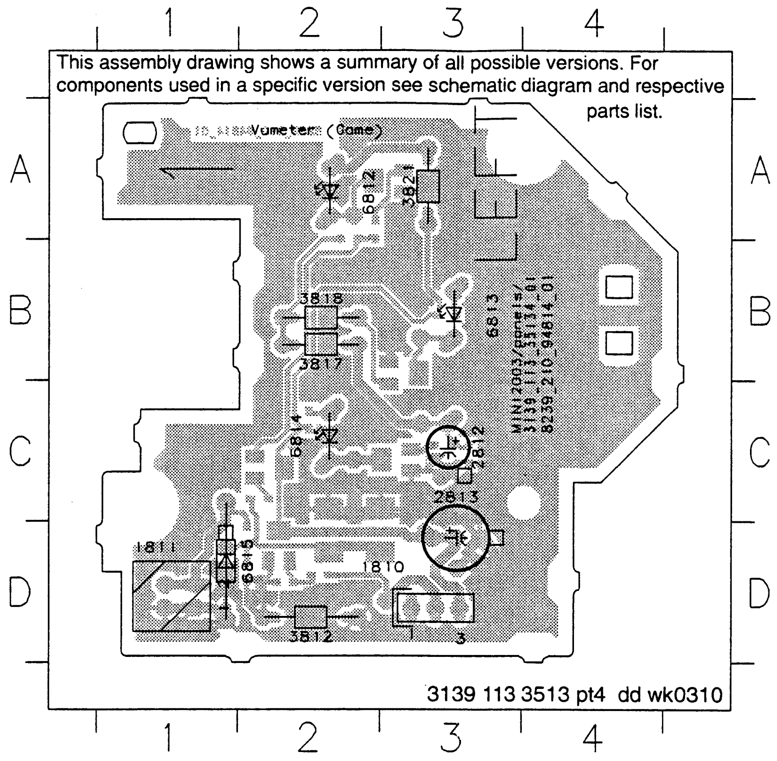
GAME PORT BOARD - CIRCUIT DIAGRAM

1890 A3	**1892 B3**	**1894 C1**	**2890 C4**	**2892 B3**	**2895 A3**	**2897 B4**	**3891 A2**	**3893 B3**
1891 B4	**1893 A1**	**1897 A4**	**2891 B2**	**2894 A2**	**2896 B4**	**3890 A2**	**3892 A3**	


1
2
3
4
A
B
C
GAME PORT
EH-S 1893
G_Audio Right
Gnd_game
G_Audio Left
3891
10K
3892
1K2
2894
680p
2895
470p
3890
10K
1890
YKC21-3826
1897
RT-01T
1891
YKC21-4503N
2896
100p
2897
100p
3893
1K2
2891
680p
2892
470p
1892
YKC21-3564
Gnd_Video
Video Signal
HR 1894
2890
220n
GND_video
Note : Some values may varies, see respective parts list for correct value.
3139 118 56720...8239_210_94824 for 3513 pt4 dd wk0310

VU METER (LEFT) BOARD - COMPONENT LAYOUT

1810 D3	2813 C3	3818 B2	6813 B3
1811 D1	3812 D2	3821 A3	6814 C2
2812 C3	3817 B2	6812 A2	6815 D2

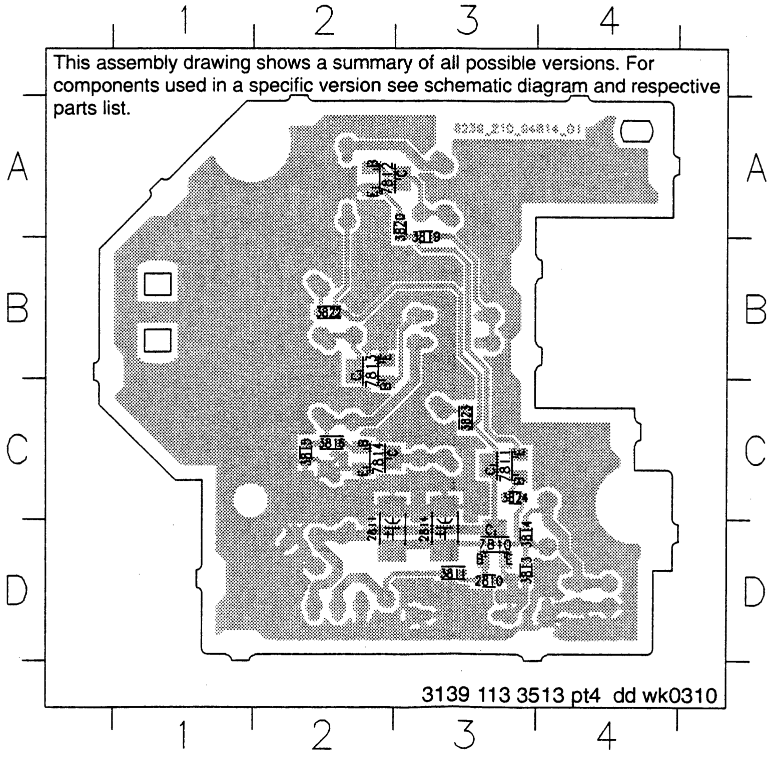


This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

1
2
3
4
A
B
C
D
Vumeter (Gome)
6812
3821
3818
3817
6813
MINI2003/panels/
3139_113_35134_01
8239_210_94814_01
6814
2812
2813
1811
6815
1810
3812
3
3139 113 3513 pt4 dd wk0310

VU METER (LEFT) BOARD - CHIP LAYOUT

2810 D3	3813 D3	3819 A3	3824 C3	7813 B2
2811 D2	3814 D3	3820 A3	7810 D3	7814 C2
2814 D3	3815 C2	3822 B2	7811 C3	
3811 D3	3816 C2	3823 C3	7812 A2	

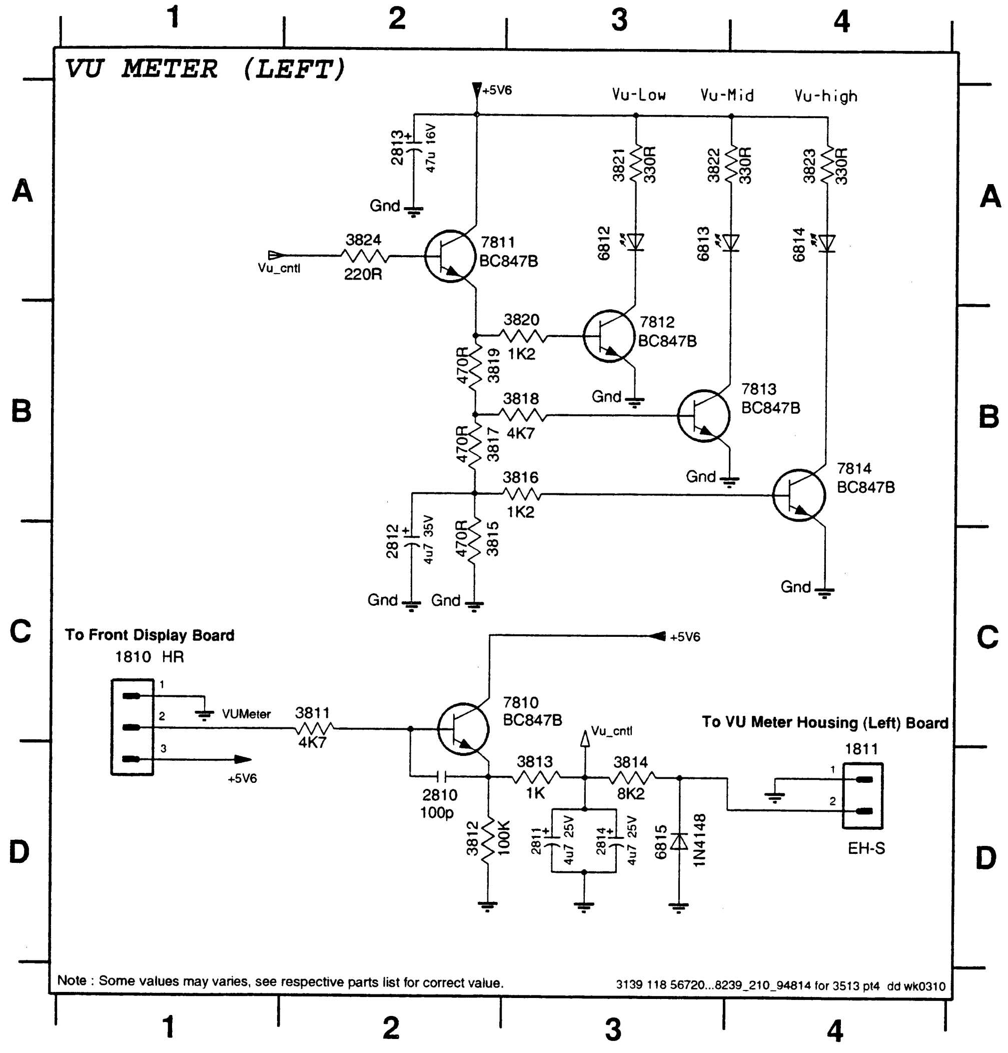


This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

1
2
3
4
A
B
C
D
8239_210_94814_01
3139 113 3513 pt4 dd wk0310

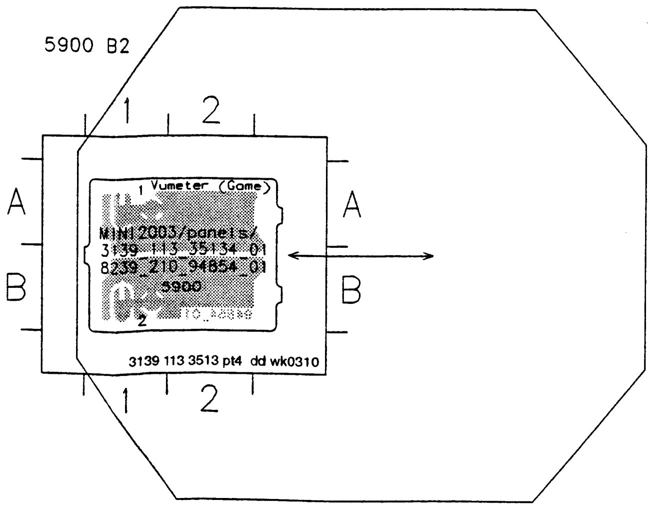
VU METER (LEFT) BOARD - CIRCUIT DIAGRAM

1810 C1	2811 D3	2814 D3	3813 D3	3816 B3	3819 B2	3822 A3	6812 A3	6815 D3	7812 B3
1811 D4	2812 C2	3811 C2	3814 D3	3817 B2	3820 B3	3823 A4	6813 A3	7810 C2	7813 B4
2810 D2	2813 A2	3812 D2	3815 C2	3818 B3	3821 A3	3824 A2	6814 A4	7811 A2	7814 B4



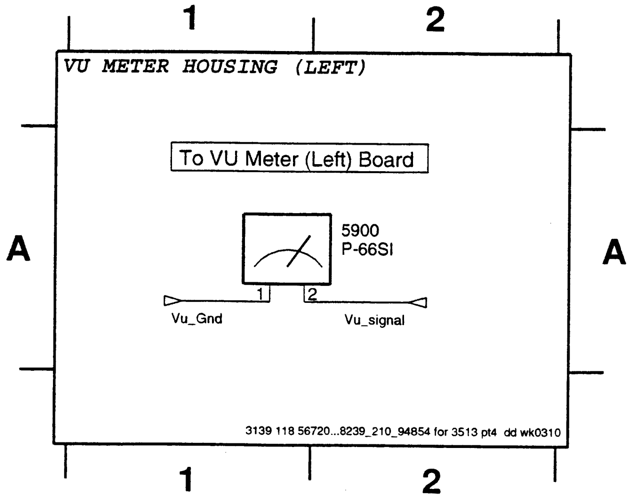
VU METER (LEFT)
+5V6
Vu-Low
Vu-Mid
Vu-high
2813 47u 16V
3821 330R
3822 330R
3823 330R
Gnd
3824 220R
Vu_cntl
7811 BC847B
6812
6813
6814
3820 1K2
7812 BC847B
3819 470R
3818 4K7
7813 BC847B
3817 470R
3816 1K2
7814 BC847B
2812 4u7 35V
3815 470R
To Front Display Board
1810 HR
VUMeter
3811 4K7
7810 BC847B
Vu_cntl
To VU Meter Housing (Left) Board
1811
3813 1K
3814 8K2
2810 100p
3812 100K
2811 4u7 25V
2814 4u7 25V
6815 1N4148
EH-S
Note : Some values may varies, see respective parts list for correct value.
3139 118 56720...8239_210_94814 for 3513 pt4 dd wk0310

VU METER HOUSING (LEFT) BOARD - COMPONENT LAYOUT & CIRCUIT DIAGRAM



5900 B2
1
2
A
B
Vumeter (Gome)
MINI2003/panels/
3139_113_35134_01
8239_210_94854_01
5900
3139 113 3513 pt4 dd wk0310

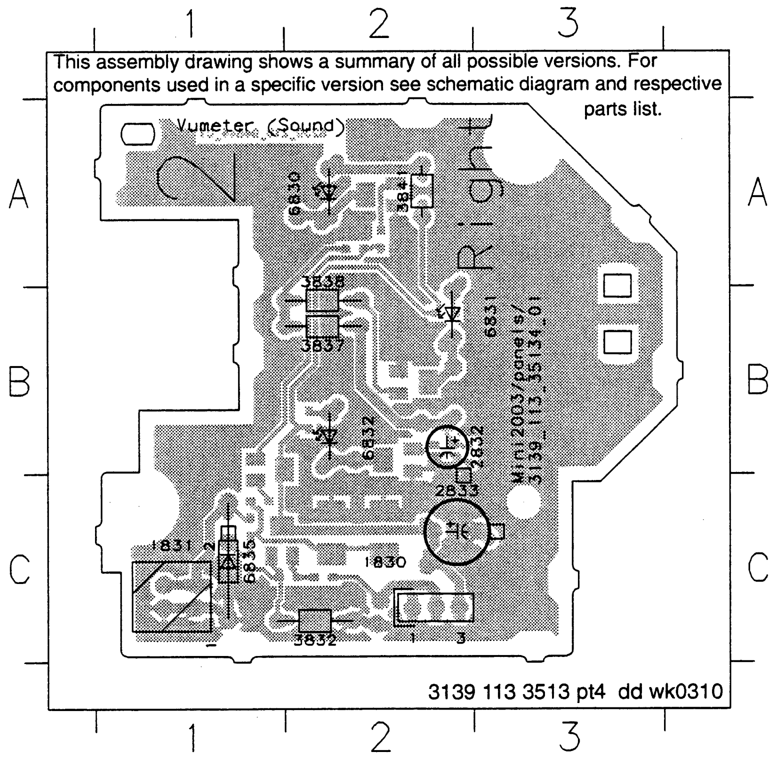
5900 A2



1
2
A
VU METER HOUSING (LEFT)
To VU Meter (Left) Board
5900
P-66SI
Vu_Gnd
Vu_signal
3139 118 56720...8239_210_94854 for 3513 pt4 dd wk0310

VU METER (RIGHT) BOARD - COMPONENT LAYOUT

1830 C2	2833 C2	3838 A2	6831 B3
1831 C1	3832 C2	3841 A2	6832 B2
2832 B3	3837 B2	6830 A2	6835 C1

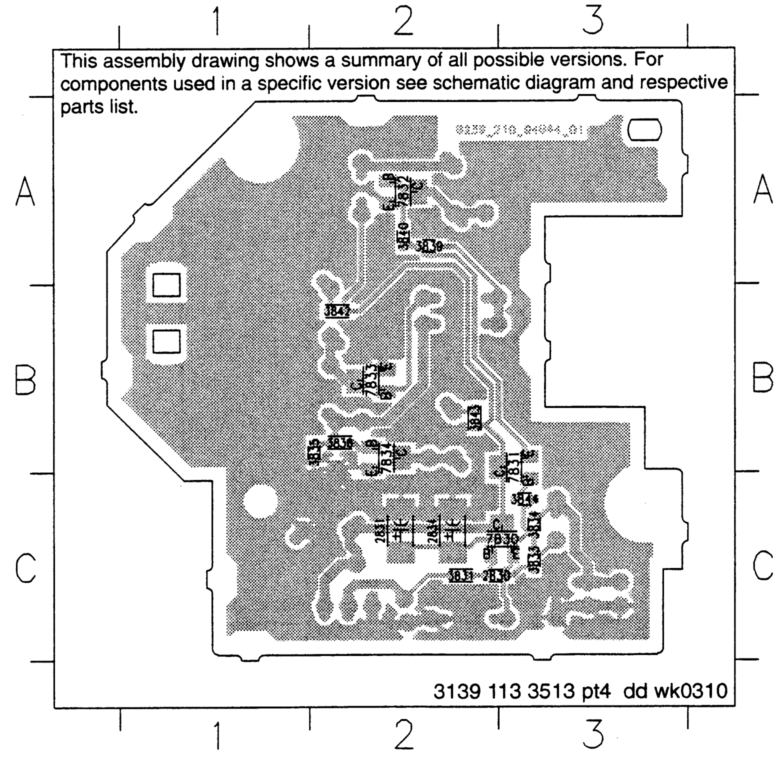

1
2
3
A
B
C
Vumeter (Sound)
2
Right
6830
3841
3838
3837
6831
Mini2003/panels/
3139_113_35134_01
6832
2832
2833
1831
6835
1830
3832
1
3

This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

3139 113 3513 pt4 dd wk0310

VU METER (RIGHT) BOARD - CHIP LAYOUT

2830 C2	3833 C3	3839 A2	3844 C3	7833 B2
2831 C2	3834 C3	3840 A2	7830 C3	7834 B2
2834 C2	3835 B2	3842 B2	7831 B3	
3831 C2	3836 B2	3843 B2	7832 A2	

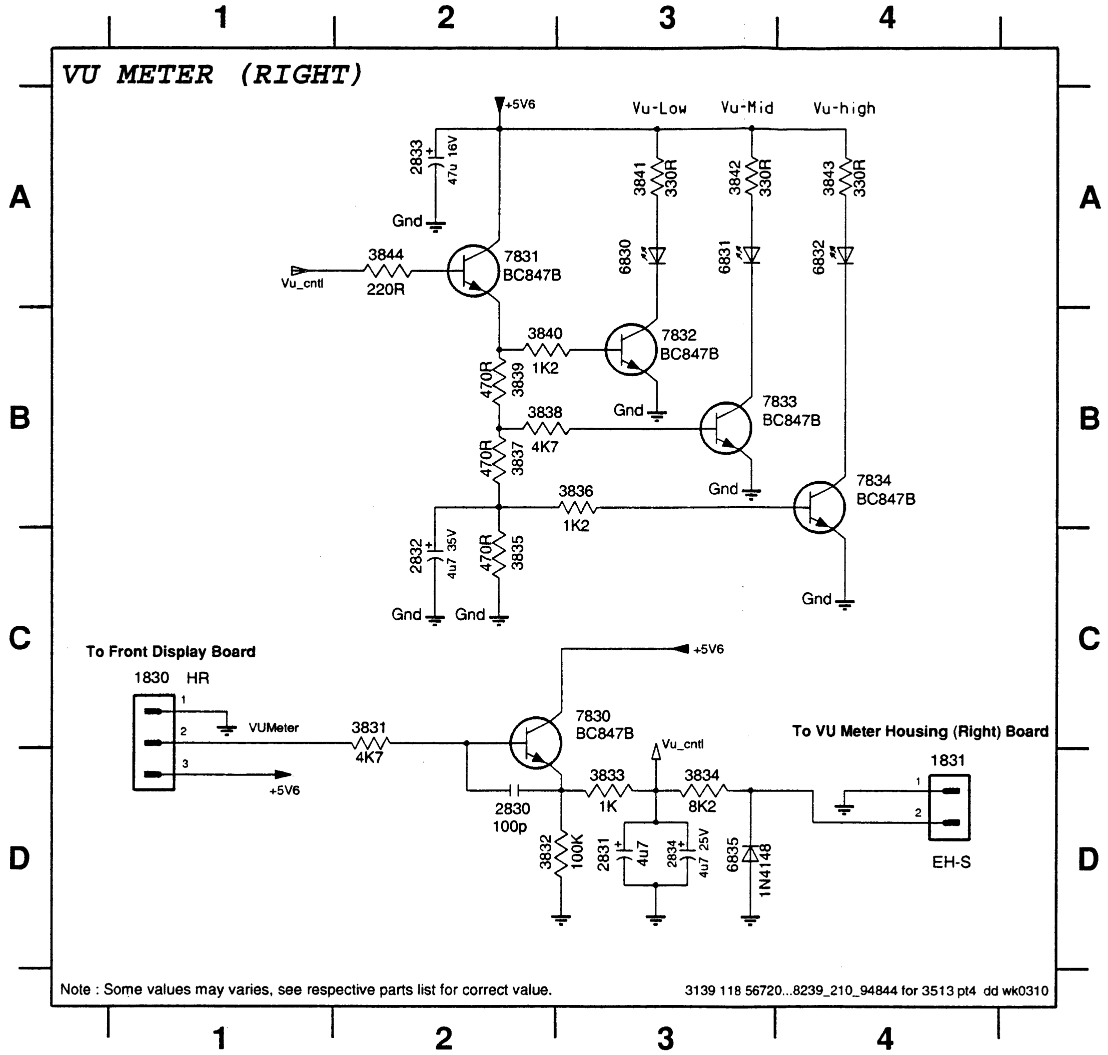

1
2
3
A
B
C
8239_210_94844_01
3839
3840
3842
7833
3843
3835
3836
7831
3844
2831
2834
7830
3834
3833
2830

This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

3139 113 3513 pt4 dd wk0310

VU METER (RIGHT) BOARD - CIRCUIT DIAGRAM

1830 C1	2831 D3	2834 D3	3833 D3	3836 B3	3839 B2	3842 A3	6830 A3	6835 D3	7832 B3
1831 D4	2832 C2	3831 C2	3834 D3	3837 B2	3840 B2	3843 A4	6831 A3	7830 C3	7833 B3
2830 D2	2833 A2	3832 D2	3835 C2	3838 B2	3841 A3	3844 A2	6832 A4	7831 A2	7834 B4

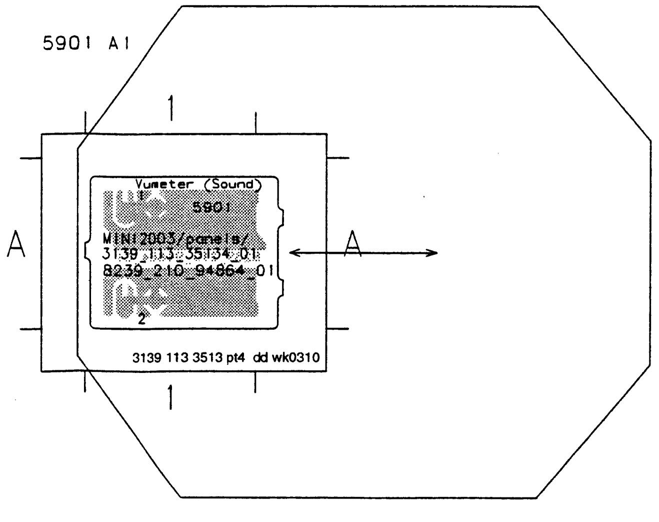

1
2
3
4
A
B
C
D
VU METER (RIGHT)
+5V6
Vu-Low
Vu-Mid
Vu-high
2833
47u 16V
Gnd
3841
330R
3842
330R
3843
330R
6830
6831
6832
Vu_cntl
3844
220R
7831
BC847B
3840
1K2
7832
BC847B
3839
470R
3838
4K7
Gnd
7833
BC847B
3837
470R
3836
1K2
7834
BC847B
2832
4u7 35V
3835
470R
Gnd
To Front Display Board
1830 HR
VUMeter
3831
4K7
+5V6
7830
BC847B
Vu_cntl
To VU Meter Housing (Right) Board
1831
3833
1K
3834
8K2
2830
100p
3832
100K
2831
4u7
2834
4u7 25V
6835
1N4148
EH-S

Note : Some values may varies, see respective parts list for correct value.

3139 118 56720...8239_210_94844 for 3513 pt4 dd wk0310

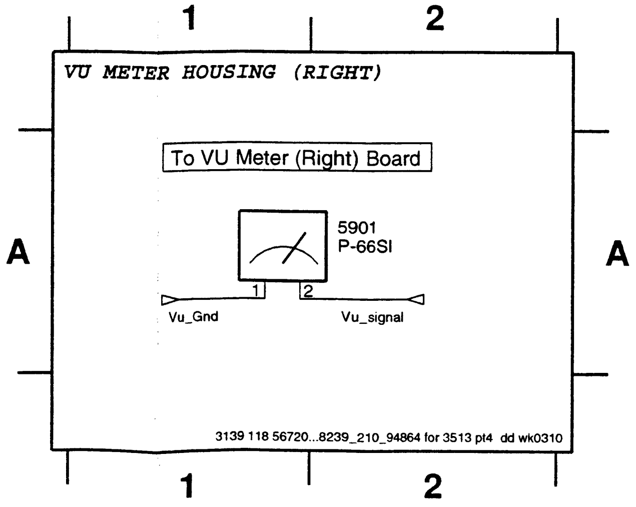
VU METER HOUSING (RIGHT) BOARD - COMPONENT LAYOUT & CIRCUIT DIAGRAM

5901 A1


1
A
Vumeter (Sound)
5901
Mini2003/panels/
3139_113_35134_01
8239_210_94864_01
1
2
A

3139 113 3513 pt4 dd wk0310

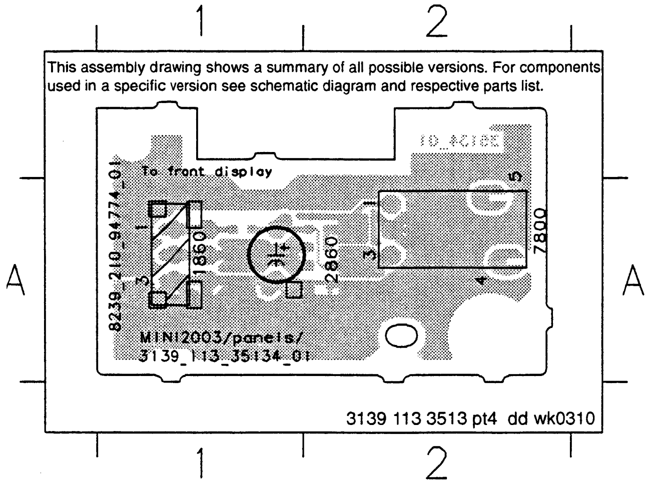
5901 A2


1
2
A
VU METER HOUSING (RIGHT)
To VU Meter (Right) Board
5901
P-66SI
1
2
Vu_Gnd
Vu_signal

3139 118 56720...8239_210_94864 for 3513 pt4 dd wk0310

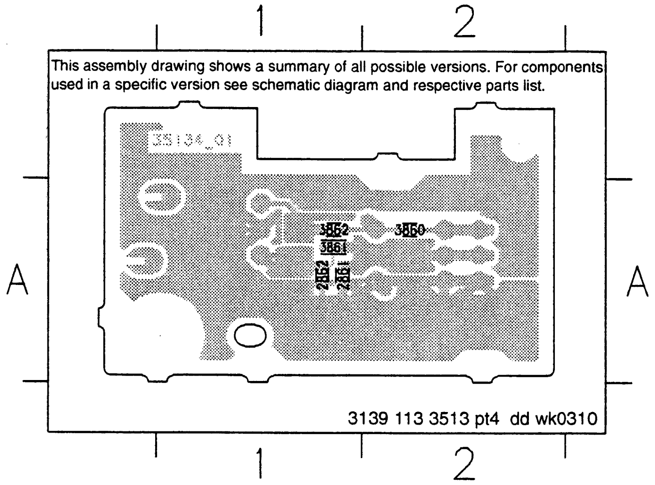
R EYE BOARD - COMPONENT LAYOUT

1860 A1 2860 A2 7800 A2


1
2
A
This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.
To front display
8239_210_94774_01
1860
2860
7800
MINI2003/panels/
3139_113_35134_01
3139 113 3513 pt4 dd wk0310

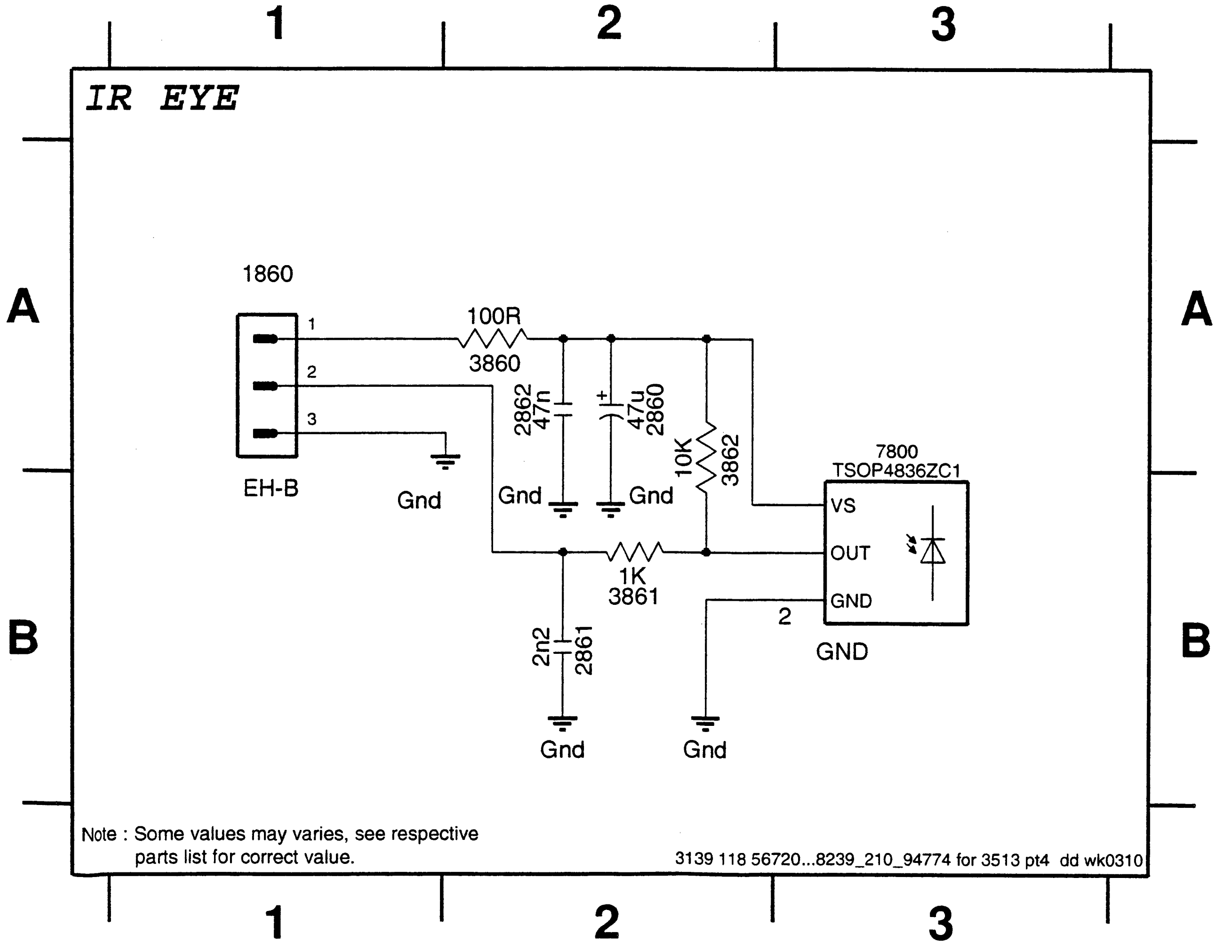
IR EYE BOARD - CHIP LAYOUT

2861 A1 3860 A2 3862 A1
2862 A1 3861 A1


1
2
A
This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.
35134_01
3862
3861
3860
2862
2861
3139 113 3513 pt4 dd wk0310

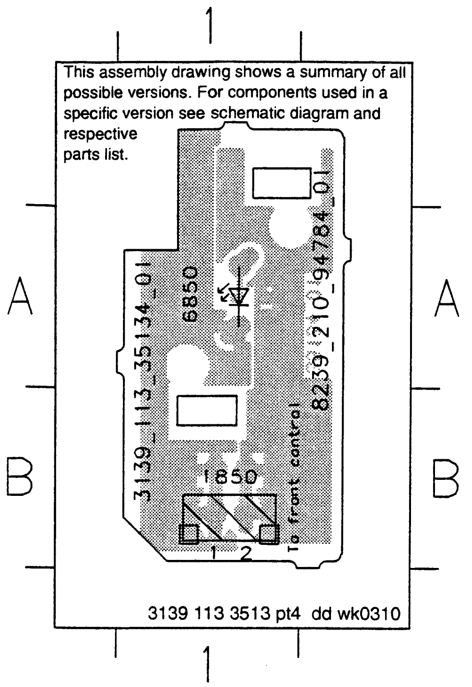
IR EYE BOARD - CIRCUIT DIAGRAM

1860 A1 2860 A2 2861 B2 2862 A2 3860 A2 3861 B2 3862 A2 7800 A3


1
2
3
A
B
IR EYE
1860
EH-B
100R
3860
2862
47n
47u
2860
10K
3862
7800
TSOP4836ZC1
VS
OUT
GND
1K
3861
2n2
2861
Gnd
GND
Note : Some values may varies, see respective parts list for correct value.
3139 118 56720...8239_210_94774 for 3513 pt4 dd wk0310

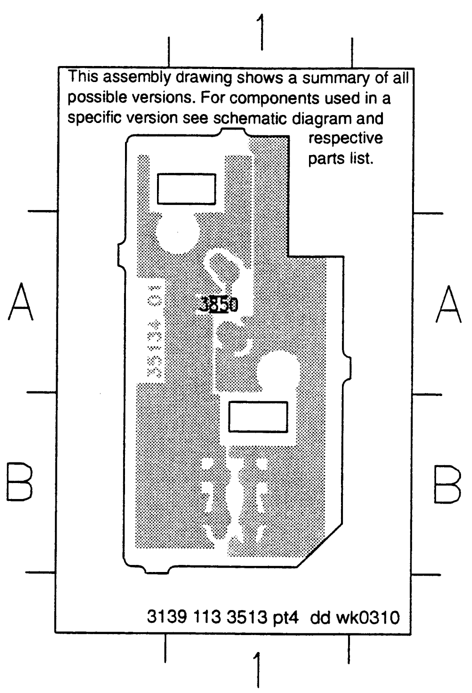
USB LED BOARD - COMPONENT LAYOUT

1850 B1 6850 A1


1
A
B
This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.
6850
1850
3139_113_35134_01
8239_210_94784_01
To front control
3139 113 3513 pt4 dd wk0310

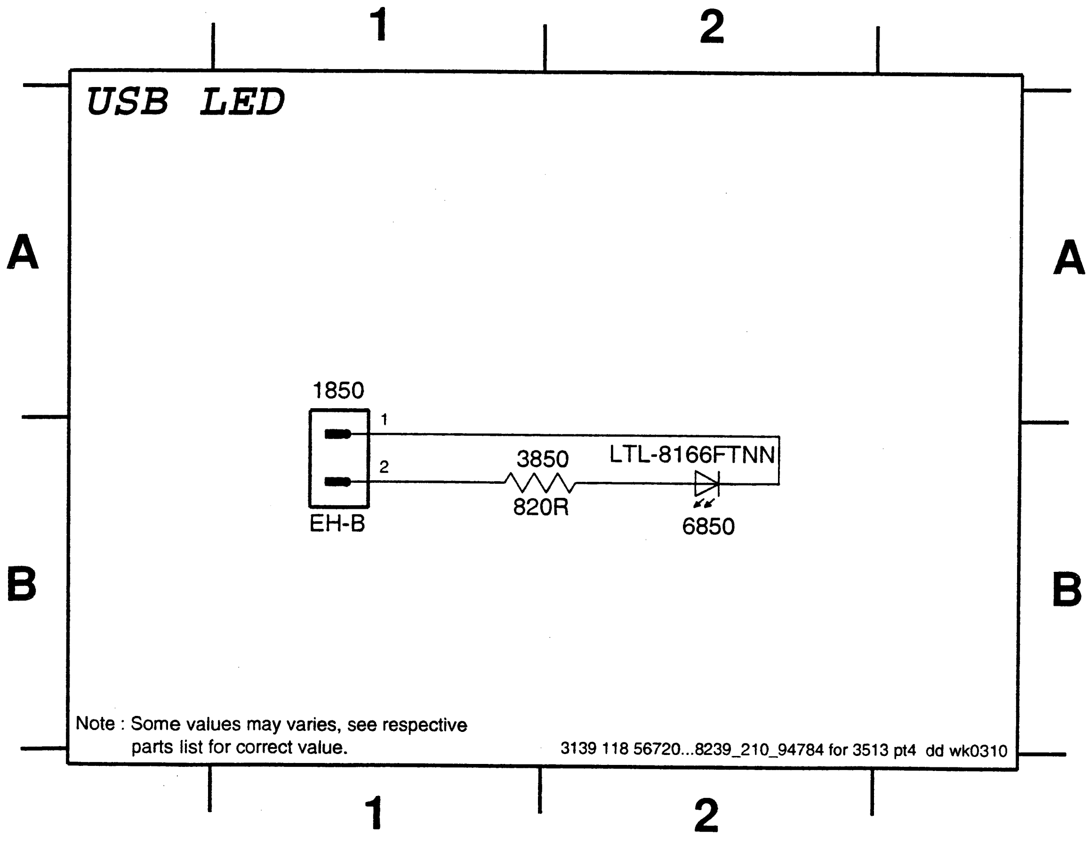
USB LED BOARD - CHIP LAYOUT

3850 A1


1
A
B
This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.
3850
35134_01
3139 113 3513 pt4 dd wk0310

USB LED BOARD - CIRCUIT DIAGRAM

1850 A1 3850 B1 6850 B2


1
2
A
B
USB LED
1850
EH-B
3850
820R
LTL-8166FTNN
6850
Note : Some values may varies, see respective parts list for correct value.
3139 118 56720...8239_210_94784 for 3513 pt4 dd wk0310

ELECTRICAL PARTS LIST - FRONT CONTROL BOARD

MISCELLANEOUS

1600	4822 265 11208	Flex Connector 10P
1602	4822 265 11535	Flex Connector 8P
1650	4822 276 13775	Tact Switch
1651	4822 276 13775	Tact Switch
1652	4822 276 13775	Tact Switch
1653	4822 276 13775	Tact Switch
1654	4822 276 13775	Tact Switch
1655	4822 276 13775	Tact Switch
1656	4822 276 13775	Tact Switch
1657	4822 276 13775	Tact Switch
1658	4822 276 13775	Tact Switch
1659	4822 276 13775	Tact Switch
1660	4822 276 13775	Tact Switch
1661	4822 276 13775	Tact Switch
1662	4822 276 13775	Tact Switch
1664	4822 276 13775	Tact Switch
1666	4822 276 13775	Tact Switch
1669	4822 276 13775	Tact Switch
1672	4822 276 13775	Tact Switch
1673	4822 276 13775	Tact Switch
1674	4822 276 13775	Tact Switch
1675	4822 276 13775	Tact Switch
1691	2422 129 16708	Rotary Encoder 24P
1692	4822 276 13775	Tact Switch
1840	4822 267 10733	Flex Connector 4P
1841	4822 265 11529	Headphone Socket
1880	4822 267 10958	Flex Connector 5P
1881	4822 276 13775	Tact Switch
1890	4822 265 10913	Cinch Socket - G/Port Audio R
1891	2422 026 05434	Cinch Socket - G/Port Audio L
1892	4822 267 31996	Cinch Socket - G/Port Video

CAPACITORS

2611	4822 124 41796	22uF 20% 16V
2612	4822 124 22726	4,7uF 35V
2614	4822 124 22726	4,7uF 35V
2616	5322 126 11578	1nF 10% 50V
2617	5322 126 11578	1nF 10% 50V
2620	4822 124 11947	10uF 20% 16V
2621	5322 126 11583	10nF 10% 50V
2622	5322 126 11583	10nF 10% 50V
2623	2020 552 94427	100pF 5% 50V
2624	2020 552 94427	100pF 5% 50V
2625	3198 016 31020	1nF 25V
2626	3198 016 31020	1nF 25V
2627	3198 016 31020	1nF 25V
2628	2238 586 59812	100nF +80/-20% 50V
2629	2238 586 59812	100nF +80/-20% 50V
2630	3198 016 31020	1nF 25V
2631	4822 126 13883	220pF 5% 50V
2632	4822 126 13883	220pF 5% 50V
2633	2020 552 94427	100pF 5% 50V
2634	2020 552 94427	100pF 5% 50V
2635	2020 552 94427	100pF 5% 50V
2636	2020 552 94427	100pF 5% 50V
2637	3198 016 38210	820pF 25V
2638	3198 016 38210	820pF 25V
2810	2020 552 94427	100pF 5% 50V
2811	4822 124 12312	4,7uF 20% 16V
2812	4822 124 22726	4,7uF 35V
2813	4822 124 81286	47uF 20% 16V
2814	4822 124 12312	4,7uF 20% 16V
2830	2020 552 94427	100pF 5% 50V
2831	4822 124 12312	4,7uF 20% 16V
2832	4822 124 22726	4,7uF 35V
2833	4822 124 81286	47uF 20% 16V
2834	4822 124 12312	4,7uF 20% 16V
2841	2238 916 15641	22nF 10% 25V
2843	2238 916 15641	22nF 10% 25V
2844	2238 586 59812	100nF +80/-20% 50V
2860	4822 124 40433	47uF 20% 25V
2861	4822 126 14238	2,2nF 50V
2862	3198 017 34730	47nF 16V
2880	4822 124 40769	4,7uF 20% 100V
2891	3198 016 36810	680pF 25V
2892	4822 126 13881	470pF 5% 50V
2894	3198 016 36810	680pF 25V
2895	4822 126 13881	470pF 5% 50V
2896	2020 552 94427	100pF 5% 50V
2897	2020 552 94427	100pF 5% 50V

RESISTORS

3628	4822 051 30102	1k 5% 0,062W
3629	4822 051 30102	1k 5% 0,062W
3630	4822 051 30221	220R 5% 0,062W
3637	4822 117 12925	47k 1% 0,063W
3647	4822 051 30471	470R 5% 0,062W
3651	4822 051 30102	1k 5% 0,062W
3652	4822 051 30102	1k 5% 0,062W
3653	4822 117 12925	47k 1% 0,063W
3655	4822 117 12925	47k 1% 0,063W
3656	4822 117 12925	47k 1% 0,063W
3657	4822 051 30472	4k7 5% 0,062W
3658	4822 051 30472	4k7 5% 0,062W
3659	4822 051 30472	4k7 5% 0,062W
3660	4822 101 11904	POTM 20KX2 20% 0,025W
3661	4822 051 30103	10k 5% 0,062W
3662	4822 051 30103	10k 5% 0,062W
3663	4822 051 30151	150R 5% 0,062W
3664	4822 051 30221	220R 5% 0,062W
3665	4822 051 30271	270R 5% 0,062W
3666	4822 051 30391	390R 5% 0,062W

ELECTRICAL PARTS LIST - FRONT CONTROL BOARD

3667	4822 051 30561	560R 5% 0,062W
3668	4822 117 12968	820R 5% 0,62W
3669	4822 117 11817	1k2 1% 1/16W
3670	4822 117 12903	1k8 1% 0,063W
3671	4822 051 30272	2k7 5% 0,062W
3672	4822 051 30472	4k7 5% 0,062W
3674	4822 051 30151	150R 5% 0,062W
3675	4822 051 30221	220R 5% 0,062W
3676	4822 051 30271	270R 5% 0,062W
3677	4822 051 30391	390R 5% 0,062W
3678	4822 051 30561	560R 5% 0,062W
3679	4822 117 12968	820R 5% 0,62W
3680	4822 117 11817	1k2 1% 1/16W
3681	4822 051 30272	2k7 5% 0,062W
3682	4822 051 30472	4k7 5% 0,062W
3683	4822 051 30102	1k 5% 0,062W
3684	4822 051 30102	1k 5% 0,062W
3685	4822 051 30222	2k2 5% 0,062W
3686	4822 051 30222	2k2 5% 0,062W
3689	4822 051 30472	4k7 5% 0,062W
3690	4822 051 30103	10k 5% 0,062W
3691	4822 051 30103	10k 5% 0,062W
3692	4822 051 30103	10k 5% 0,062W
3695	4822 051 30103	10k 5% 0,062W
3696	4822 051 30471	470R 5% 0,062W
3697	4822 051 30471	470R 5% 0,062W
3698	4822 051 30471	470R 5% 0,062W
3699	4822 051 30471	470R 5% 0,062W
3701	4822 051 30271	270R 5% 0,062W
3702	4822 051 30181	180R 5% 0,062W
3703	4822 051 30181	180R 5% 0,062W
3704	4822 051 30181	180R 5% 0,062W
3705	4822 051 30221	220R 5% 0,062W
3706	4822 051 30221	220R 5% 0,062W
3708	4822 117 12903	1k8 1% 0,063W
3709	4822 051 30472	4k7 5% 0,062W
3811	4822 051 30472	4k7 5% 0,062W
3812	4822 116 52234	100k 5% 0,5W
3813	4822 051 30102	1k 5% 0,062W
3814	4822 117 12902	8k2 1% 0,063W
3815	4822 051 30471	470R 5% 0,062W
3816	4822 117 11817	1k2 1% 1/16W
3817	4822 116 83883	470R 5% 0,5W
3818	4822 116 52283	4k7 5% 0,5W
3819	4822 051 30471	470R 5% 0,062W
3820	4822 117 11817	1k2 1% 1/16W
3821	4822 116 52219	330R 5% 0,5W
3822	4822 051 30331	330R 5% 0,062W
3823	4822 051 30331	330R 5% 0,062W
3824	4822 051 30221	220R 5% 0,062W
3831	4822 051 30472	4k7 5% 0,062W
3832	4822 116 52234	100k 5% 0,5W
3833	4822 051 30102	1k 5% 0,062W
3834	4822 117 12902	8k2 1% 0,063W
3835	4822 051 30471	470R 5% 0,062W
3836	4822 117 11817	1k2 1% 1/16W
3837	4822 116 83883	470R 5% 0,5W
3838	4822 116 52283	4k7 5% 0,5W
3839	4822 051 30471	470R 5% 0,062W
3840	4822 117 11817	1k2 1% 1/16W
3841	4822 116 52219	330R 5% 0,5W
3842	4822 051 30331	330R 5% 0,062W
3843	4822 051 30331	330R 5% 0,062W
3844	4822 051 30221	220R 5% 0,062W
3850	4822 117 12968	820R 5% 0,62W
3860	4822 051 30101	100R 5% 0,062W
3861	4822 051 30102	1k 5% 0,062W
3862	4822 051 30103	10k 5% 0,062W
3880	4822 117 12925	47k 1% 0,063W
3881	4822 117 12968	820R 5% 0,62W
3890	4822 051 30103	10k 5% 0,062W
3891	4822 050 21003	10k 1% 0,06W
3892	4822 117 11817	1k2 1% 1/16W
3893	4822 117 11817	1k2 1% 1/16W
4600	4822 051 30008	0R Jumper 0603
4610	4822 051 30008	0R Jumper 0603
4660	4822 051 30008	0R Jumper 0603
4661	4822 051 30008	0R Jumper 0603
4662	4822 051 30008	0R Jumper 0603

COILS & FILTERS

5601	4822 157 62552	Coil 2,2uH 5%
5602	4822 157 62552	Coil 2,2uH 5%
5840	4822 157 62552	Coil 2,2uH 5%
5841	4822 157 62552	Coil 2,2uH 5%
5842	4822 157 62552	Coil 2,2uH 5%

DIODES

6620	4822 130 82978	LED VS LTL-1CHPE
6621	4822 130 82978	LED VS LTL-1CHPE
6622	4822 130 82978	LED VS LTL-1CHPE
6623	9322 178 87676	LED VS LTL-1CHTBK4-KA
6624	9322 178 87676	LED VS LTL-1CHTBK4-KA
6625	9322 178 87676	LED VS LTL-1CHTBK4-KA
6626	9322 191 85676	LED VS LTL816kETNN
6627	9322 191 85676	LED VS LTL816kETNN
6628	9322 191 85676	LED VS LTL816kETNN
6629	9322 191 85676	LED VS LTL816kETNN
6812	9322 178 15676	LED VS LTL-8166FTNN
6813	9322 178 15676	LED VS LTL-8166FTNN
6814	9322 191 85676	LED VS LTL816kETNN
6815	4822 130 30621	1N4148

ELECTRICAL PARTS LIST - FRONT CONTROL BOARD

DIODES

6830	9322 178 15676	LED VS LTL-8166FTNN
6831	9322 178 15676	LED VS LTL-8166FTNN
6832	9322 191 85676	LED VS LTL816kETNN
6835	4822 130 30621	1N4148
6850	9322 191 85676	LED VS LTL816kETNN
6880	4822 130 30621	1N4148
6881	9322 167 73676	LED VS LTL-4221NLC-KA

TRANSISTORS & INTEGRATED CIRCUITS

7601	4822 209 15449	74HC4094D
7602	5322 130 60159	BC847B
7603	5322 130 60159	BC847B
7604	5322 130 60159	BC847B
7605	5322 130 60159	BC847B
7606	4822 209 15449	74HC4094D
7607	4822 130 42804	BC817-25
7608	4822 130 42804	BC817-25
7609	4822 130 42804	BC817-25
7610	4822 130 42804	BC817-25
7650	5322 130 60159	BC847B
7800	9322 185 97667	IR Receiver TSOP4836ZC1
7810	5322 130 60159	BC847B
7811	5322 130 60159	BC847B
7812	5322 130 60159	BC847B
7813	5322 130 60159	BC847B
7814	5322 130 60159	BC847B
7830	5322 130 60159	BC847B
7831	5322 130 60159	BC847B
7832	5322 130 60159	BC847B
7833	5322 130 60159	BC847B
7834	5322 130 60159	BC847B
7880	4822 130 60373	BC857B

Note : Only the parts mentioned in this list are normal service spare parts.

FRONT DISPLAY BOARD

TABLE OF CONTENTS

FTD Display Pin Connection 6-1
Display part - Component Layout 6-2
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Display part - Circuit Diagram 6-4
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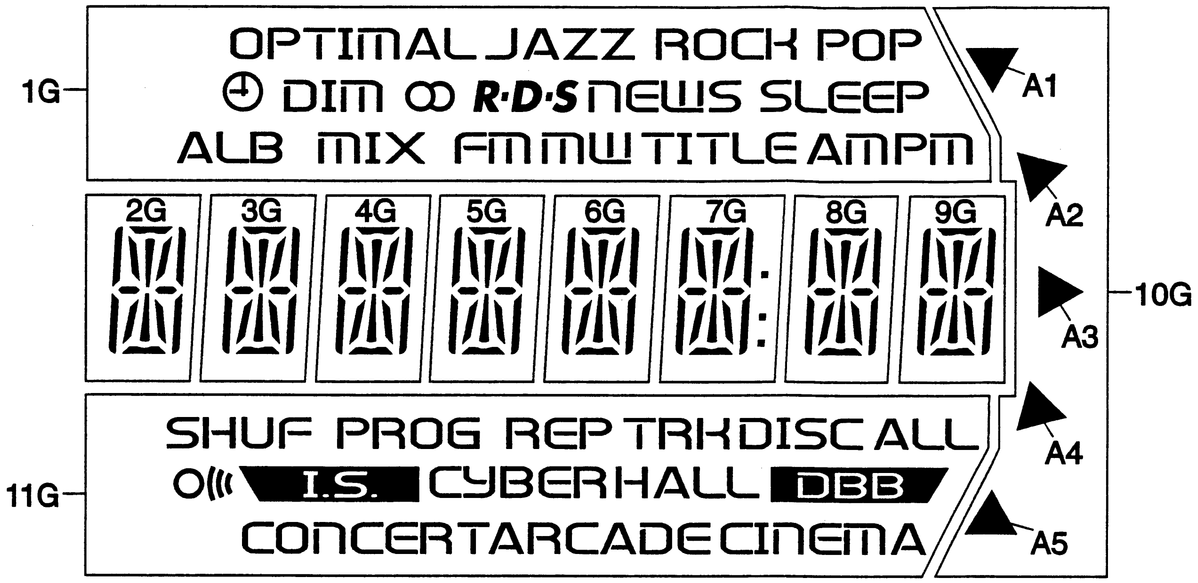
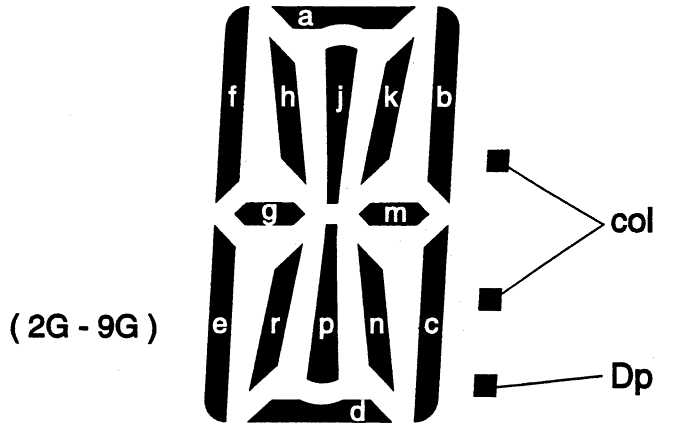
Electrical parts list 6-5

FTD DISPLAY PIN CONNECTION



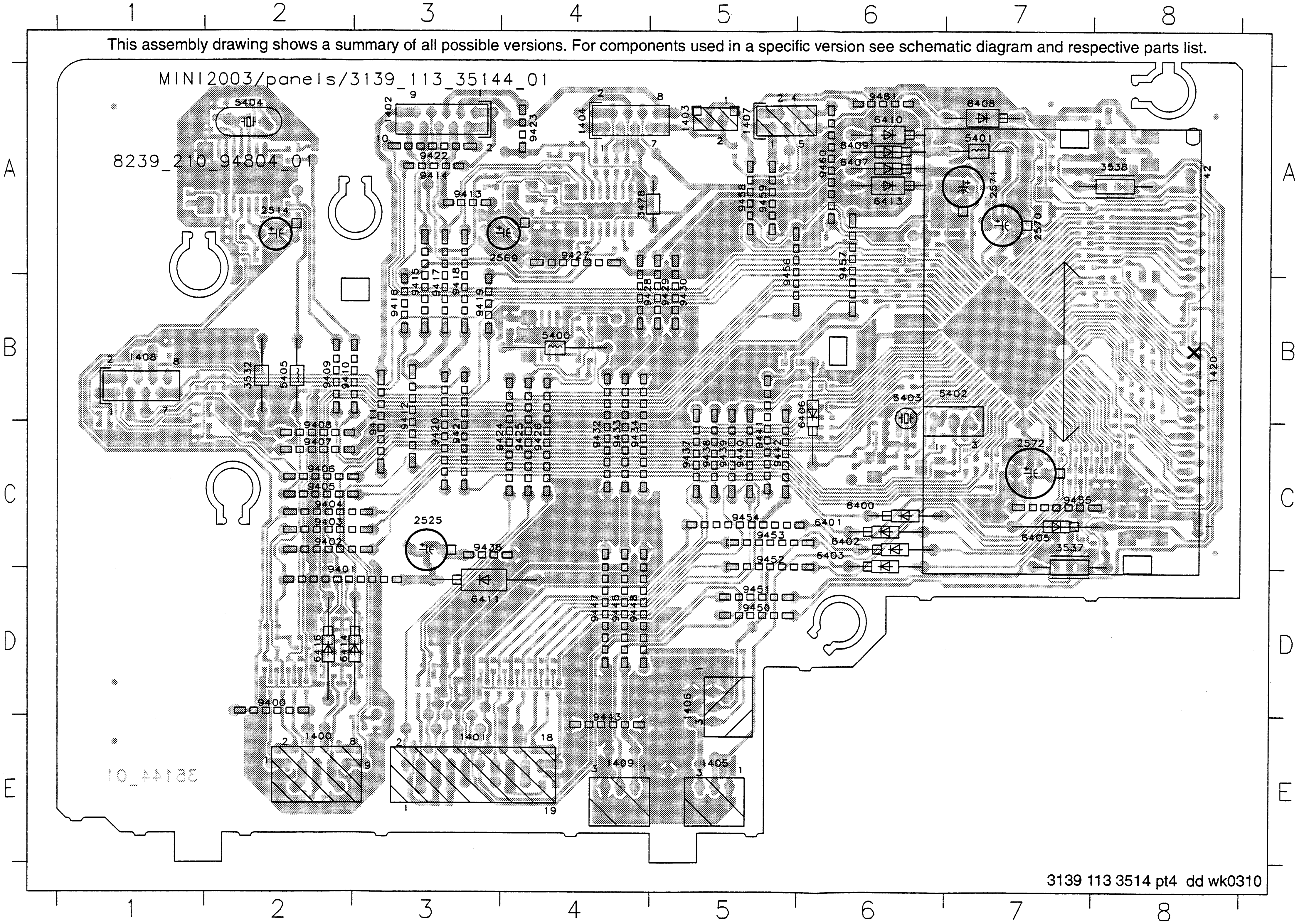
1G
OPTIMAL JAZZ ROCK POP
DIM R·D·S NEWS SLEEP
ALB MIX FM MW TITLE AM PM
2G 3G 4G 5G 6G 7G 8G 9G
10G
A1
A2
A3
A4
A5
11G
SHUF PROG REP TRK DISC ALL
I.S. CYBER HALL DBB
CONCERT ARCADE CINEMA



a
f
h
j
k
b
g
m
e
r
p
n
c
d
col
Dp
(2G - 9G)

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G
P1	OPTIMAL	a	a	a	a	a	a	a	a	A1	O(((
P2	JAZZ	h	h	h	h	h	h	h	h	A2	SHUF
P3	ROCK	j , p	j , p	j , p	j , p	j , p	j , p	j , p	j , p	A3	PROG
P4	POP	k	k	k	k	k	k	k	k	A4	REP
P5	◷	b	b	b	b	b	b	b	b	A5	TRK
P6	DIM	f	f	f	f	f	f	f	f	-	DISC
P7	∞	m	m	m	m	m	m	m	m	-	ALL
P8	R·D·S	g	g	g	g	g	g	g	g	-	I.S.
P9	NEWS	c	c	c	c	c	c	c	c	-	CYBER
P10	SLEEP	e	e	e	e	e	e	e	e	-	HALL
P11	ALB	r	r	r	r	r	r	r	r	-	DBB
P12	MIX	n	n	n	n	n	n	n	n	-	CONCERT
P13	FM	d	d	d	d	d	d	d	d	-	ARCADE
P14	MW	-	-	-	-	-	col	-	-	-	CINEMA
P15	TITLE	-	-	-	-	-	Dp	-	-	-	-
P16	AM	-	-	-	-	-	-	-	-	-	-
P17	PM	-	-	-	-	-	-	-	-	-	-

DISPLAY BOARD - COMPONENT LAYOUT



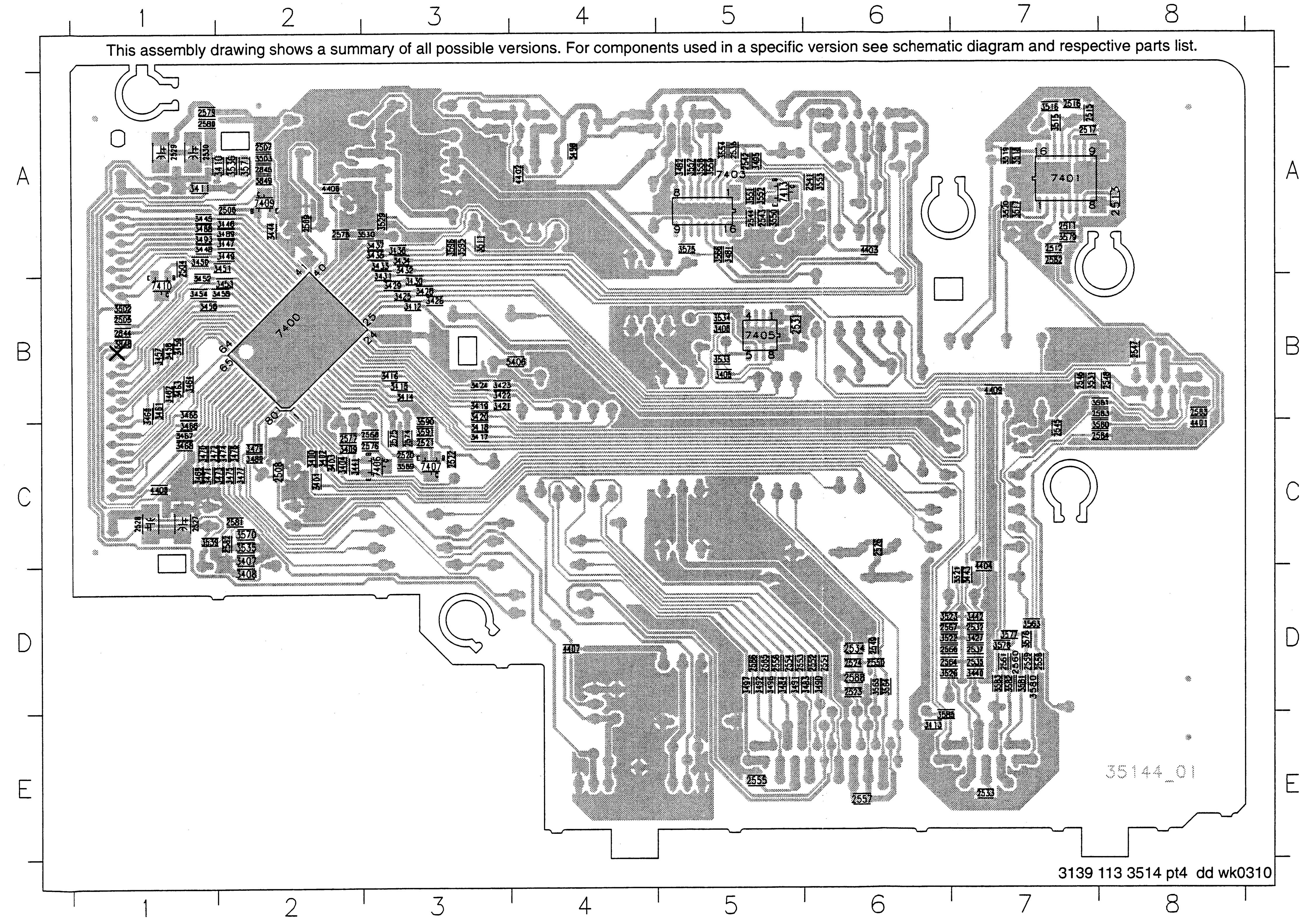
This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

1
2
3
4
5
6
7
8
A
B
C
D
E
MINI2003/panels/3139_113_35144_01
8239_210_94804_01
35144_01
5404
2514
2569
2525
2570
2571
2572
3478
3532
5405
5400
5401
5402
5403
3538
3537
1400
1401
1402
1403
1404
1405
1406
1407
1408
1409
1420
6400
6401
6402
6403
6405
6406
6407
6408
6409
6410
6411
6413
6414
6416

3139 113 3514 pt4 dd wk0310

1400	E2
1401	E3
1402	A3
1403	A5
1404	A4
1405	E5
1406	D5
1407	A5
1408	B1
1409	E4
1420	B8
2514	A2
2525	C3
2569	A4
2570	A7
2571	A7
2572	C7
3478	A4
3532	B2
3537	C7
3538	A8
5400	B4
5401	A7
5402	B7
5403	B6
5404	A2
5405	B2
6400	C6
6401	C6
6402	C6
6403	C6
6405	C7
6406	B6
6407	A6
6408	A7
6409	A6
6410	A6
6411	D3
6413	A6
6414	D2
6416	D2
9400	D2
9401	D2
9402	C2
9403	C2
9404	C2
9405	C2
9406	C2
9407	C2
9408	C2
9409	B2
9410	B2
9411	C3
9412	B3
9413	A3
9414	A3
9415	B3
9416	B3
9417	B3
9418	B3
9419	B3
9420	C3
9421	C3
9422	A3
9423	A4
9424	C3
9425	C4
9426	C4
9427	A4
9428	B4
9429	B5
9430	B5
9432	C4
9433	C4
9434	C4
9436	C3
9437	C5
9438	C5
9439	C5
9440	C5
9441	C5
9442	C5
9443	E4
9445	D4
9447	D4
9448	D4
9450	D5
9451	D5
9452	C5
9453	C5
9454	C5
9455	C7
9456	A5
9457	A6
9458	A5
9459	A5
9460	A6
9461	A6

DISPLAY BOARD - CHIP LAYOUT

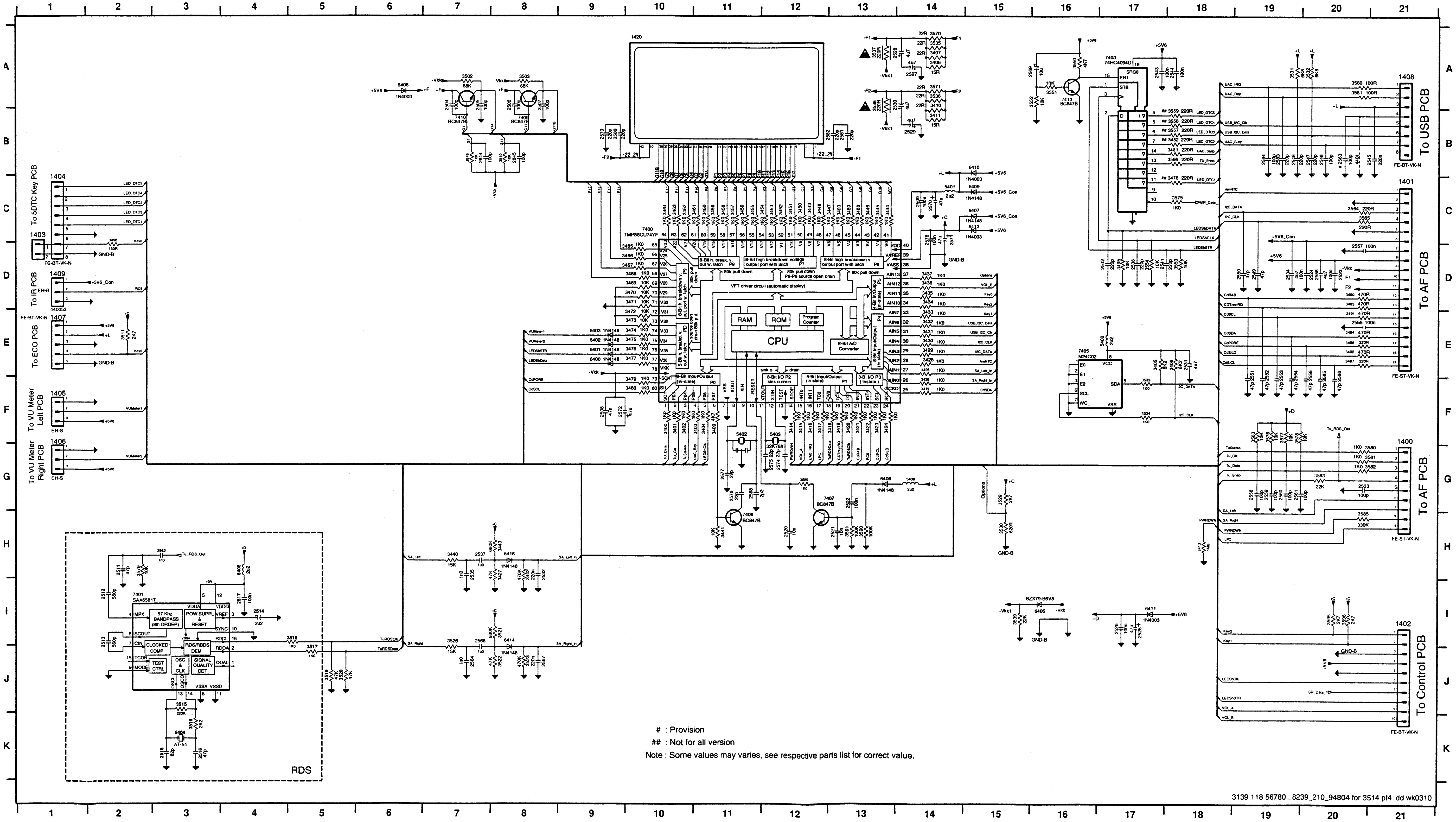


This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

2504	A1
2505	B1
2506	A2
2507	A2
2508	C2
2509	A2
2511	A7
2512	A7
2513	A8
2515	A7
2516	A7
2517	A7
2520	C3
2521	C3
2522	C3
2523	D6
2524	D6
2526	C6
2527	C1
2528	C1
2529	A1
2530	A1
2531	B5
2532	D7
2533	E7
2534	D6
2535	D7
2536	A5
2537	D7
2541	A6
2542	A5
2543	A5
2544	A5
2545	C7
2546	B7
2547	B8
2548	B8
2549	D6
2550	D6
2551	D6
2552	D6
2553	D5
2554	D5
2555	E5
2556	D5
2557	E6
2558	D7
2559	D7
2560	D7
2561	D7
2562	A7
2563	B8
2564	D6
2566	D6
2567	D6
2568	C3
2574	C3
2575	C3
2576	C3
2577	C2
2578	A2
2579	A1
2580	A1
2581	C2
2582	C2
2583	B8
2584	C8
2585	D5
2586	D5
2588	D6
2844	B1
2845	A2
3400	C2
3401	C2
3402	C2
3403	C2
3404	C2
3405	B5
3406	B5
3407	C2
3408	D2
3409	C2
3410	A2
3411	A1
3412	B3
3413	E6
3414	B3
3415	B3
3416	B3
3417	C3
3418	C3
3419	B3
3420	B3
3421	B3
3422	B3
3423	B3
3424	B3
3425	B3
3426	B3
3427	D7
3428	B3
3429	B3
3430	B3
3431	A3
3432	A3
3433	A3
3434	A3
3435	A3
3436	A3
3437	A3
3440	D7
3441	C2
3442	D7
3443	D7
3444	A2
3445	A1
3446	A2
3447	A2
3448	A1
3449	A2
3450	A1
3451	A2
3452	B1
3453	B2
3454	B1
3455	B2
3456	B1
3457	B1
3458	B1
3459	B1
3460	B1
3461	B1
3462	B1
3463	B1
3464	B1
3465	B1
3466	C1
3467	C1
3468	C1
3469	C1
3470	C1
3471	C1
3472	C1
3473	C2
3474	C2
3475	C2
3476	C2
3477	C2
3479	C2
3480	C2
3481	A5
3482	A5
3483	D6
3484	D5
3488	A1
3489	A2
3490	D6
3491	D5
3492	D5
3493	A1
3495	A5
3496	D5
3497	D5
3498	A4
3502	B1
3503	A2
3511	A3
3515	A7
3516	A7
3517	A7
3518	A7
3519	A7
3520	A7
3521	D7
3522	D6
3523	D6
3526	D6
3529	A3
3530	A3
3531	B7
3533	B5
3534	B5
3535	C2
3536	A2
3539	C1
3550	A5
3551	A5
3552	A5
3553	A6
3554	A5
3557	A5
3558	A5
3559	A5
3560	C8
3561	B8
3563	D7
3564	D6
3565	D6
3566	A5
3570	C2
3571	A2
3575	A5
3576	D7
3577	D7
3578	D7
3579	A7
3580	D7
3581	D7
3582	D7
3583	D7
3585	E6
3589	C3
3590	C3
3591	C3
3595	A3
3596	A3
3848	B1
3849	A2
4401	C8
4402	A4
4403	A6
4404	D7
4406	A2
4407	D4
4408	C1
4409	B7
5406	B4
7400	B2
7401	A7
7403	A5
7405	B5
7406	C3
7407	C3
7409	A2
7410	B1
7413	A5

DISPLAY BOARD - CIRCUIT DIAGRAM

1400 G21
1401 C21
1402 I21
1403 C1
1404 C1
1405 F1
1406 G1
1407 E1
1408 A21
1409 D1
1420 A10
2504 A7
2505 A7
2506 A8
2507 A8
2508 F9
2509 C14
2511 H2
2512 I2
2513 I2
2514 I4
2515 K3
2516 K3
2517 I4
2520 H12
2521 H13
2522 G13
2523 D20
2524 D20
2525 I17
2526 I17
2527 A14
2528 A13
2529 B14
2530 A13
2531 E18
2532 H8
2533 G20
2534 D19
2535 H7
2536 D17
2537 H7
2541 D17
2542 D17
2543 A17
2544 A18
2545 B21
2546 B19
2547 B20
2548 B20
2549 D19
2550 D19
2551 E19
2552 E19
2553 E19
2554 E19
2555 E20
2556 E20
2557 D20
2558 G19
2559 G19
2560 G19
2561 G19
2562 H3
2563 B20
2564 J7
2566 I7
2567 J8
2568 G11
2569 A15
2570 C14
2571 C14
2572 F9
2574 G12
2575 G12
2576 G11
2577 G11
2578 C14
2579 B9
2580 B9
2581 B13
2582 B12
2583 B19
2584 B19
2585 E20
2586 E20
2588 D20
2844 B7
2845 B8
3400 F10
3401 F10
3402 F10
3403 F11
3404 F11
3405 E17
3406 E18
3407 A14
3408 A14
3409 F11
3410 A14
3411 B14
3412 F14
3413 H18
3414 F12
3415 F12
3416 F12
3417 F12
3418 F13
3419 F13
3420 F13
3421 F13
3422 F13
3423 F13
3424 F13
3425 E14
3426 F14
3427 H8
3428 E14
3429 E14
3430 E14
3431 E14
3432 E14
3433 E14
3434 D14
3435 D14
3436 D14
3437 D14
3440 H7
3441 H11
3442 H8
3443 H8
3444 C13
3445 C13
3446 C13
3447 C13
3448 C12
3449 C12
3450 C12
3451 C12
3452 C12
3453 C12
3454 C12
3455 C11
3456 C11
3457 C11
3458 C11
3459 C11
3460 C11
3461 C11
3462 C10
3463 C10
3464 C10
3465 D10
3466 D10
3467 D10
3468 D10
3469 D10
3470 D10
3471 D10
3472 E10
3473 E10
3474 E10
3475 E10
3476 E10
3477 E10
3478 C18
3479 F10
3480 F10
3481 B18
3482 B18
3483 D20
3484 E20
3488 C13
3489 C13
3490 D20
3491 E20
3492 E20
3493 C13
3495 D17
3496 E20
3497 E20
3498 C2
3502 A7
3503 A8
3511 E2
3515 J3
3516 K3
3517 J5
3518 I5
3519 J5
3520 J5
3521 I8
3522 J8
3523 J8
3526 I7
3529 G15
3530 H15
3531 A19
3532 A20
3533 F17
3534 F17
3535 A14
3536 A14
3537 A13
3538 A13
3539 I15
3550 A16
3551 A16
3552 A16
3553 D18
3554 D17
3557 B18
3558 B18
3559 B18
3560 A20
3561 A20
3563 F19
3564 C20
3565 C20
3566 B18
3570 A14
3571 A14
3575 C18
3576 F19
3577 F19
3578 F19
3579 H2
3580 G21
3581 G21
3582 G21
3583 G20
3585 H20
3589 G12
3590 H13
3591 H13
3595 I20
3596 I20
3848 B7
3849 B8
4401 B20
5400 E17
5401 C14
5402 F11
5403 F12
5404 K3
5405 H4
5406 G14
6400 E9
6401 E9
6402 E9
6403 E9
6405 I16
6406 G13
6407 C15
6408 A6
6409 C15
6410 B15
6411 I17
6413 C15
6414 I8
6416 H8
7400 C10
7401 I2
7403 A17
7405 E16
7406 H11
7407 G13
7409 B8
7410 B7
7413 A16

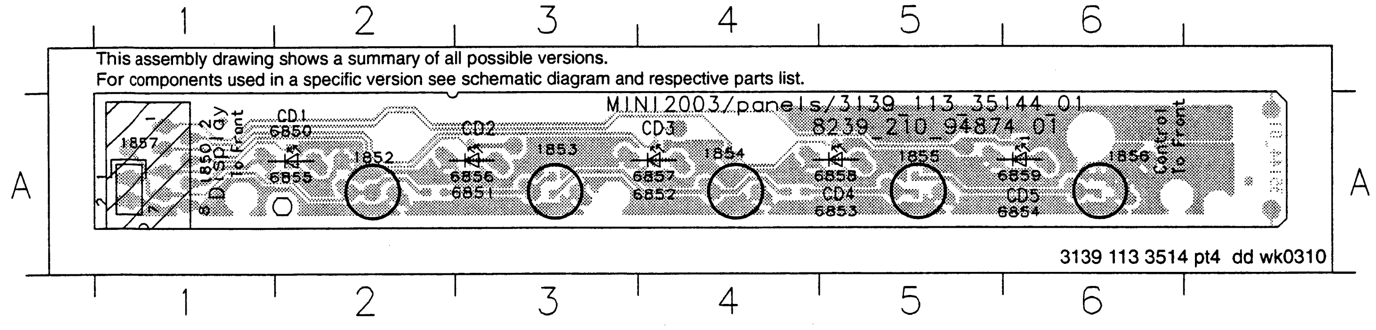

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
A B C D E F G H I J K
1404
To 5DTC Key PCB
1403
FE-BT-VK-N
1409
To IR PCB
EH-B
440053
FE-BT-VK-N
1407
To ECO PCB
1405
To VU Meter Left PCB
EH-S
1406
To VU Meter Right PCB
EH-S
1420
7400
TMP88CU74YF
CPU
RAM
ROM
Program Counter
8-Bit A/D Converter
VFT driver circuit (automatic display)
7401
SAA6581T
MPX
57 Khz BANDPASS (8th ORDER)
POW SUPPL & RESET
CLOCKED COMP
RDS/RBDS DEM
TEST CTRL
OSC & CLK
SIGNAL QUALITY DET
RDS
7403
74HC4094D
7405
M24C02
7406
BC847B
7407
BC847B
7409
BC847B
7410
BC847B
7413
BC847B
1408
To USB PCB
FE-BT-VK-N
1401
To AF PCB
FE-ST-VK-N
1400
To AF PCB
FE-ST-VK-N
1402
To Control PCB
FE-BT-VK-N

# : Provision
## : Not for all version
Note : Some values may varies, see respective parts list for correct value.

3139 118 56780...8239_210_94804 for 3514 pt4 dd wk0310

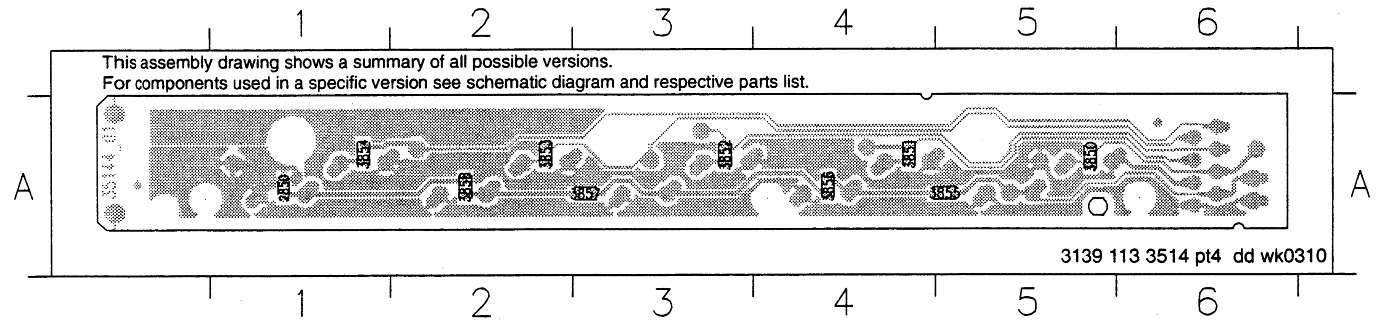
5DTC KEY BOARD - COMPONENT LAYOUT

1850	A1
1852	A2
1853	A3
1854	A4
1855	A5
1856	A6
1857	A1
6850	A2
6851	A3
6852	A4
6853	A5
6854	A6
6855	A2
6856	A3
6857	A4
6858	A5
6859	A6


This assembly drawing shows a summary of all possible versions.
For components used in a specific version see schematic diagram and respective parts list.
1
2
3
4
5
6
A
MINI2003/panels/3139_113_35144_01
8239_210_94874_01
1857
1850
Display
to Front
CD1
6850
6855
1852
CD2
6856
6851
1853
CD3
6857
6852
1854
6858
CD4
6853
1855
6859
CD5
6854
1856
Control
to Front
3139 113 3514 pt4 dd wk0310

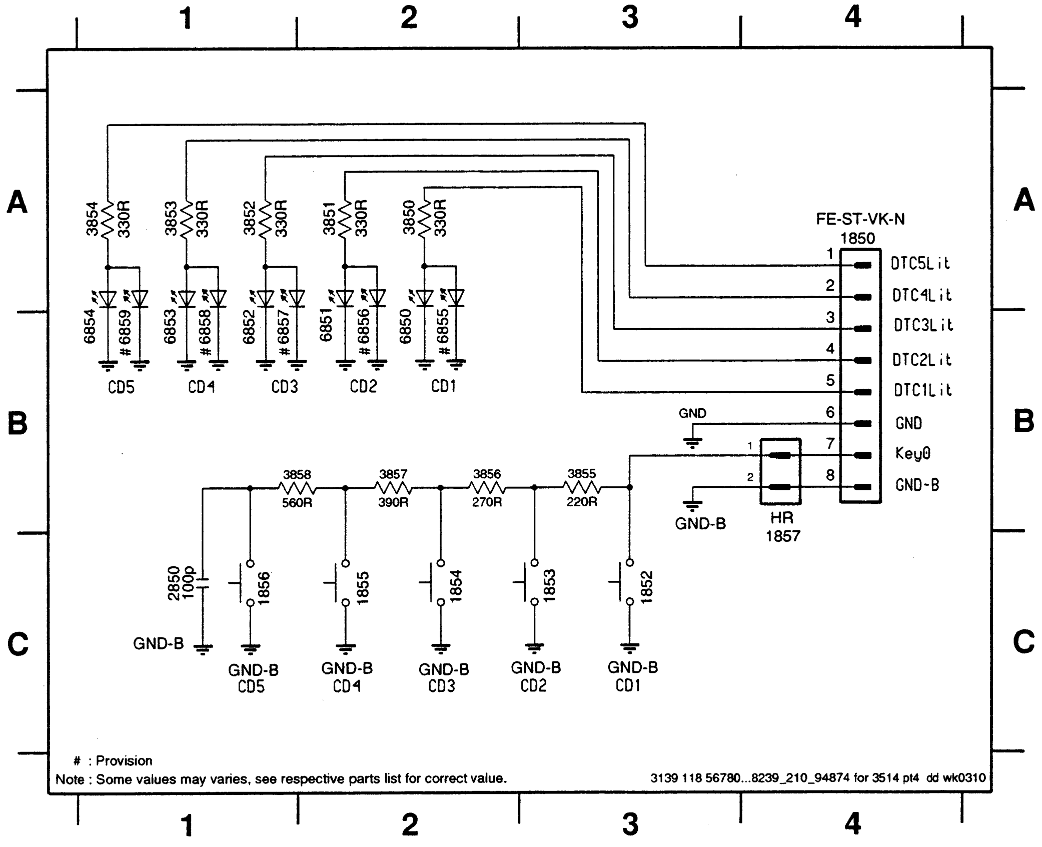
5DTC KEY BOARD - CHIP LAYOUT

2850	A1
3850	A5
3851	A4
3852	A3
3853	A2
3854	A1
3855	A5
3856	A4
3857	A3
3858	A2


This assembly drawing shows a summary of all possible versions.
For components used in a specific version see schematic diagram and respective parts list.
1
2
3
4
5
6
A
35144_01
2850
3854
3858
3853
3857
3852
3856
3851
3855
3850
3139 113 3514 pt4 dd wk0310

5DTC KEY BOARD - CIRCUIT DIAGRAM

1850	A4
1852	C3
1853	C3
1854	C2
1855	C2
1856	C1
1857	C4
2850	C1
3850	A2
3851	A2
3852	A1
3853	A1
3854	A1
3855	B3
3856	B2
3857	B2
3858	B1
6850	A2
6851	A2
6852	A1
6853	A1
6854	B1
6855	B2
6856	B2
6857	B1
6858	B1
6859	B1


1
2
3
4
A
B
C
3854
330R
3853
330R
3852
330R
3851
330R
3850
330R
6854
# 6859
6853
# 6858
6852
# 6857
6851
# 6856
6850
# 6855
CD5
CD4
CD3
CD2
CD1
FE-ST-VK-N
1850
DTC5Lit
DTC4Lit
DTC3Lit
DTC2Lit
DTC1Lit
GND
Key0
GND-B
GND
GND-B
HR
1857
3858
560R
3857
390R
3856
270R
3855
220R
2850
100p
1856
1855
1854
1853
1852
GND-B
GND-B
CD5
GND-B
CD4
GND-B
CD3
GND-B
CD2
GND-B
CD1
3139 118 56780...8239_210_94874 for 3514 pt4 dd wk0310

: Provision
Note : Some values may varies, see respective parts list for correct value.

ELECTRICAL PARTS LIST - FRONT DISPLAY BOARD

MISCELLANEOUS

1400	4822 265 11531	Flex Connector 9P
1401	4822 265 11545	Flex Connector 19P
1402	4822 267 10729	Flex Connector 10P
1404	4822 265 11515	Flex Connector 8P
1407	4822 267 10954	Flex Connector 5P
1408	4822 265 11515	Flex Connector 8P
1420	3139 110 53411	FTD (BJ902GNK)
1850	4822 265 11535	Flex Connector 8P
1852	4822 276 13775	Tact Switch
1853	4822 276 13775	Tact Switch
1854	4822 276 13775	Tact Switch
1855	4822 276 13775	Tact Switch
1856	4822 276 13775	Tact Switch

CAPACITORS

2504	2020 552 94427	100pF 5% 50V
2505	2020 552 94427	100pF 5% 50V
2506	2020 552 94427	100pF 5% 50V
2507	2020 552 94427	100pF 5% 50V
2508	3198 024 44730	47nF 50V
2509	2238 586 59812	100nF +80/-20% 50V
2520	5322 126 11583	10nF 10% 50V
2521	5322 126 11583	10nF 10% 50V
2522	2238 586 59812	100nF +80/-20% 50V
2523	2238 586 59812	100nF +80/-20% 50V
2524	2238 586 59812	100nF +80/-20% 50V
2525	4822 124 12233	47uF 20% 25V
2526	2238 586 59812	100nF +80/-20% 50V
2527	4822 124 12312	4,7uF 16V 20%
2528	4822 124 12312	4,7uF 16V 20%
2529	4822 124 12312	4,7uF 16V 20%
2530	4822 124 12312	4,7uF 16V 20%
2531	2020 552 96305	4,7uF +80/-20% 10V
2532	4822 126 13879	220nF +80/-20% 16V
2533	2020 552 94427	100pF 5% 50V
2534	2020 552 96305	4,7uF +80/-20% 10V
2535	5322 126 11578	1nF 10% 50V
2536	4822 126 13883	220pF 5% 50V
2537	3198 017 41050	1uF 10V
2541	4822 126 13883	220pF 5% 50V
2542	4822 126 13883	220pF 5% 50V
2543	2238 586 59812	100nF +80/-20% 50V
2544	2238 586 59812	100nF +80/-20% 50V
2545	4822 126 13879	220nF +80/-20% 16V
2546	4822 126 13883	220pF 5% 50V
2547	4822 126 13883	220pF 5% 50V
2548	2020 552 94427	100pF 5% 50V
2549	4822 126 11785	47pF 5% 50V
2550	4822 126 11785	47pF 5% 50V
2551	4822 126 11785	47pF 5% 50V
2552	4822 126 11785	47pF 5% 50V
2553	4822 126 11785	47pF 5% 50V
2554	4822 126 11785	47pF 5% 50V
2555	2238 586 59812	100nF +80/-20% 50V
2556	4822 126 11785	47pF 5% 50V
2557	2238 586 59812	100nF +80/-20% 50V
2558	2020 552 94427	100pF 5% 50V
2559	2020 552 94427	100pF 5% 50V
2560	2020 552 94427	100pF 5% 50V
2561	2020 552 94427	100pF 5% 50V
2564	5322 126 11578	1nF 10% 50V
2566	3198 017 41050	1uF 10V
2567	4822 126 13879	220nF +80/-20% 16V
2568	4822 126 14223	2,2pF 50V
2569	4822 124 40248	10uF 20% 63V
2570	4822 124 12233	47uF 20% 25V
2571	4822 124 12233	47uF 20% 25V
2572	3198 028 44790	47uF 20% 35V
2574	4822 122 33761	22pF 5% 50V
2575	4822 122 33761	22pF 5% 50V
2576	4822 122 33761	22pF 5% 50V
2577	4822 122 33761	22pF 5% 50V
2578	2238 586 59812	100nF +80/-20% 50V
2579	4822 126 13883	220pF 5% 50V
2580	4822 126 13883	220pF 5% 50V
2581	4822 126 13883	220pF 5% 50V
2582	4822 126 13883	220pF 5% 50V
2583	4822 126 13883	220pF 5% 50V
2584	2020 552 94427	100pF 5% 50V
2585	4822 126 11785	47pF 5% 50V
2586	4822 126 11785	47pF 5% 50V
2588	2020 552 96305	4,7uF +80/-20% 10V
2844	2020 552 94427	100pF 5% 50V
2845	2020 552 94427	100pF 5% 50V
2850	2020 552 94427	100pF 5% 50V

RESISTORS

3400	4822 051 30102	1k 5% 0,062W
3401	4822 051 30102	1k 5% 0,062W
3402	4822 051 30102	1k 5% 0,062W
3403	4822 051 30102	1k 5% 0,062W
3404	4822 051 30471	470R 5% 0,062W
3405	4822 117 12902	8k2 1% 0,063W
3406	4822 117 12902	8k2 1% 0,063W
3407	4822 051 20229	22R 5% 0,1W
3408	4822 051 20159	15R 5% 0,1W
3409	4822 051 30472	4k7 5% 0,062W
3410	4822 051 20229	22R 5% 0,1W
3411	4822 051 20159	15R 5% 0,1W
3412	4822 051 30102	1k 5% 0,062W
3413	4822 051 30105	1M 5% 0,062W
3414	4822 051 30102	1k 5% 0,062W
3415	4822 051 30102	1k 5% 0,062W
3416	4822 051 30102	1k 5% 0,062W

ELECTRICAL PARTS LIST - FRONT DISPLAY BOARD

RESISTORS

3417	4822 051 30102	1k 5% 0,062W
3418	4822 051 30102	1k 5% 0,062W
3419	4822 051 30102	1k 5% 0,062W
3420	4822 051 30102	1k 5% 0,062W
3421	4822 051 30102	1k 5% 0,062W
3422	4822 051 30102	1k 5% 0,062W
3423	4822 051 30102	1k 5% 0,062W
3424	4822 051 30102	1k 5% 0,062W
3425	4822 051 30102	1k 5% 0,062W
3426	4822 051 30102	1k 5% 0,062W
3427	4822 117 12925	47k 1% 0,063W
3428	4822 051 30102	1k 5% 0,062W
3429	4822 051 30102	1k 5% 0,062W
3430	4822 051 30102	1k 5% 0,062W
3431	4822 051 30102	1k 5% 0,062W
3432	4822 051 30102	1k 5% 0,062W
3433	4822 051 30102	1k 5% 0,062W
3434	4822 051 30102	1k 5% 0,062W
3435	4822 051 30102	1k 5% 0,062W
3436	4822 051 30102	1k 5% 0,062W
3437	4822 051 30102	1k 5% 0,062W
3440	4822 051 30153	15k 5% 0,062W
3441	4822 051 30103	10k 5% 0,062W
3442	4822 051 30474	470k 5% 0,062W
3443	4822 051 30684	680k 5% 0,062W
3444	4822 051 30102	1k 5% 0,062W
3445	4822 051 30102	1k 5% 0,062W
3446	4822 051 30102	1k 5% 0,062W
3447	4822 051 30102	1k 5% 0,062W
3448	4822 051 30102	1k 5% 0,062W
3449	4822 051 30102	1k 5% 0,062W
3450	4822 051 30102	1k 5% 0,062W
3451	4822 051 30102	1k 5% 0,062W
3452	4822 051 30102	1k 5% 0,062W
3453	4822 051 30102	1k 5% 0,062W
3454	4822 051 30102	1k 5% 0,062W
3455	4822 051 30102	1k 5% 0,062W
3456	4822 051 30102	1k 5% 0,062W
3457	4822 051 30102	1k 5% 0,062W
3458	4822 051 30102	1k 5% 0,062W
3459	4822 051 30102	1k 5% 0,062W
3460	4822 051 30102	1k 5% 0,062W
3461	4822 051 30102	1k 5% 0,062W
3462	4822 051 30102	1k 5% 0,062W
3463	4822 051 30102	1k 5% 0,062W
3464	4822 051 30102	1k 5% 0,062W
3465	4822 051 30102	1k 5% 0,062W
3466	4822 051 30102	1k 5% 0,062W
3467	4822 051 30102	1k 5% 0,062W
3468	4822 051 30102	1k 5% 0,062W
3469	4822 051 30103	10k 5% 0,062W
3470	4822 051 30103	10k 5% 0,062W
3471	4822 051 30103	10k 5% 0,062W
3472	4822 051 30103	10k 5% 0,062W
3473	4822 051 30103	10k 5% 0,062W
3474	4822 051 30102	1k 5% 0,062W
3475	4822 051 30102	1k 5% 0,062W
3476	4822 051 30102	1k 5% 0,062W
3477	4822 051 30102	1k 5% 0,062W
3478	4822 116 83872	220R 5% 0,5W
3479	4822 051 30102	1k 5% 0,062W
3480	4822 051 30102	1k 5% 0,062W
3481	4822 051 30221	220R 5% 0,062W
3482	4822 051 30221	220R 5% 0,062W
3483	4822 051 30471	470R 5% 0,062W
3484	4822 051 30471	470R 5% 0,062W
3488	4822 051 30102	1k 5% 0,062W
3489	4822 051 30102	1k 5% 0,062W
3490	4822 051 30471	470R 5% 0,062W
3491	4822 051 30471	470R 5% 0,062W
3492	4822 051 30471	470R 5% 0,062W
3493	4822 051 30102	1k 5% 0,062W
3495	4822 051 30103	10k 5% 0,062W
3496	4822 051 30221	220R 5% 0,062W
3497	4822 051 30221	220R 5% 0,062W
3498	4822 051 30151	150R 5% 0,062W
3502	4822 051 30683	68k 5% 0,062W
3503	4822 051 30683	68k 5% 0,062W
3511	4822 051 30272	2k7 5% 0,062W
3519	4822 117 12925	47k 1% 0,063W
3520	4822 117 12925	47k 1% 0,063W
3521	4822 051 30684	680k 5% 0,062W
3522	4822 117 12925	47k 1% 0,063W
3523	4822 051 30474	470k 5% 0,062W
3526	4822 051 30153	15k 5% 0,062W
3529	4822 051 30272	2k7 5% 0,062W
3530	4822 117 11817	1k2 1% 1/16W
3531	4822 051 30682	6k8 5% 0,062W
3532	4822 116 83961	6k8 5%
3533	4822 051 30102	1k 5% 0,062W
3534	4822 051 30102	1k 5% 0,062W
3535	4822 051 20229	22R 5% 0,1W
3536	4822 051 20229	22R 5% 0,1W
3537	4822 052 10221	△ 220R 5% 0,33W
3538	4822 052 10221	△ 220R 5% 0,33W
3539	4822 051 30223	22k 5% 0,062W
3550	4822 051 30472	4k7 5% 0,062W
3551	4822 051 30103	10k 5% 0,062W
3552	4822 051 30103	10k 5% 0,062W
3553	4822 051 30103	10k 5% 0,062W
3554	4822 051 30103	10k 5% 0,062W
3557	4822 051 30221	220R 5% 0,062W
3558	4822 051 30221	220R 5% 0,062W
3559	4822 051 30221	220R 5% 0,062W

ELECTRICAL PARTS LIST - FRONT DISPLAY BOARD

3560	4822 051 30101	100R 5% 0,062W
3561	4822 051 30101	100R 5% 0,062W
3563	4822 051 30103	10k 5% 0,062W
3564	4822 051 30221	220R 5% 0,062W
3565	4822 051 30221	220R 5% 0,062W
3566	4822 051 30221	220R 5% 0,062W
3570	4822 051 20229	22R 5% 0,1W
3571	4822 051 20229	22R 5% 0,1W
3575	4822 051 30102	1k 5% 0,062W
3576	4822 051 30103	10k 5% 0,062W
3577	4822 051 30103	10k 5% 0,062W
3578	4822 051 30103	10k 5% 0,062W
3580	4822 051 30102	1k 5% 0,062W
3581	4822 051 30102	1k 5% 0,062W
3582	4822 051 30102	1k 5% 0,062W
3583	4822 051 30223	22k 5% 0,062W
3585	4822 051 30334	330k 5% 0,062W
3589	4822 051 30102	1k 5% 0,062W
3590	4822 117 13632	100k 1% 0,62W
3591	4822 117 13632	100k 1% 0,62W
3595	4822 051 30272	2k7 5% 0,062W
3596	4822 051 30272	2k7 5% 0,062W
3848	4822 051 30103	10k 5% 0,062W
3849	4822 051 30103	10k 5% 0,062W
3850	4822 051 30331	330R 5% 0,062W
3851	4822 051 30331	330R 5% 0,062W
3852	4822 051 30331	330R 5% 0,062W
3853	4822 051 30331	330R 5% 0,062W
3854	4822 051 30331	330R 5% 0,062W
3855	4822 051 30221	220R 5% 0,062W
3856	4822 051 30271	270R 5% 0,062W
3857	4822 051 30391	390R 5% 0,062W
3858	4822 051 30561	560R 5% 0,062W
4401	4822 051 30008	0R Jumper 0603
4402	4822 051 30008	0R Jumper 0603
4403	4822 051 30008	0R Jumper 0603
4404	4822 051 30008	0R Jumper 0603
4406	4822 051 30008	0R Jumper 0603
4407	4822 051 30008	0R Jumper 0603
4408	4822 051 30008	0R Jumper 0603
4409	4822 051 30008	0R Jumper 0603

COILS & FILTERS

5400	4822 157 62552	Coil 2,2uH 5%
5401	4822 157 62552	Coil 2,2uH 5%
5402	5322 242 73686	RES CER 12MHz
5403	4822 242 70938	RES XTL 32,768kHz
5406	4822 157 10586	Coil 2,2uH 10%

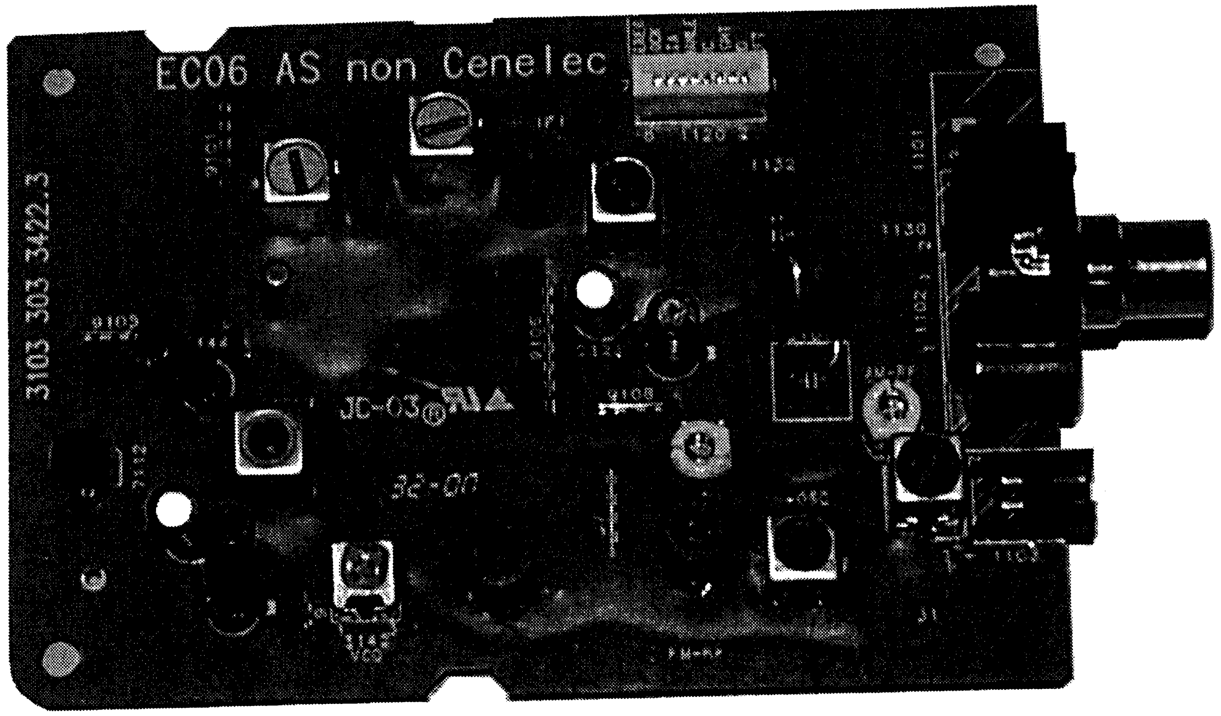
DIODES

6400	4822 130 30621	1N4148
6401	4822 130 30621	1N4148
6402	4822 130 30621	1N4148
6403	4822 130 30621	1N4148
6405	4822 130 34278	BZX79-B6V8
6406	4822 130 30621	1N4148
6407	4822 130 30621	1N4148
6408	4822 130 31878	1N4003G
6409	4822 130 30621	1N4148
6410	4822 130 31878	1N4003G
6411	4822 130 31878	1N4003G
6413	4822 130 31878	1N4003G
6414	4822 130 30621	1N4148
6416	4822 130 30621	1N4148
6855	9322 191 85676	LED VS LTL816kETNN
6856	9322 191 85676	LED VS LTL816kETNN
6857	9322 191 85676	LED VS LTL816kETNN
6858	9322 191 85676	LED VS LTL816kETNN
6859	9322 191 85676	LED VS LTL816kETNN

TRANSISTORS & INTEGRATED CIRCUITS

7400	3139 110 53351	TMP88CU74YF-'C5/7S53351'
7403	4822 209 15449	74HC4094D
7405	9322 145 26668	M24C02-WMN6
7406	5322 130 60159	BC847B
7407	5322 130 60159	BC847B
7409	5322 130 60159	BC847B
7410	5322 130 60159	BC847B
7413	5322 130 60159	BC847B

Note : Only the parts mentioned in this list are normal service spare parts.


ECO6 AS non Cenelec
3103 303 3422.3
JD-03
1120
1101
1102
1103
1130
32-00

ECO6 Tuner Board

version: ***SYSTEMS non-CENELEC***

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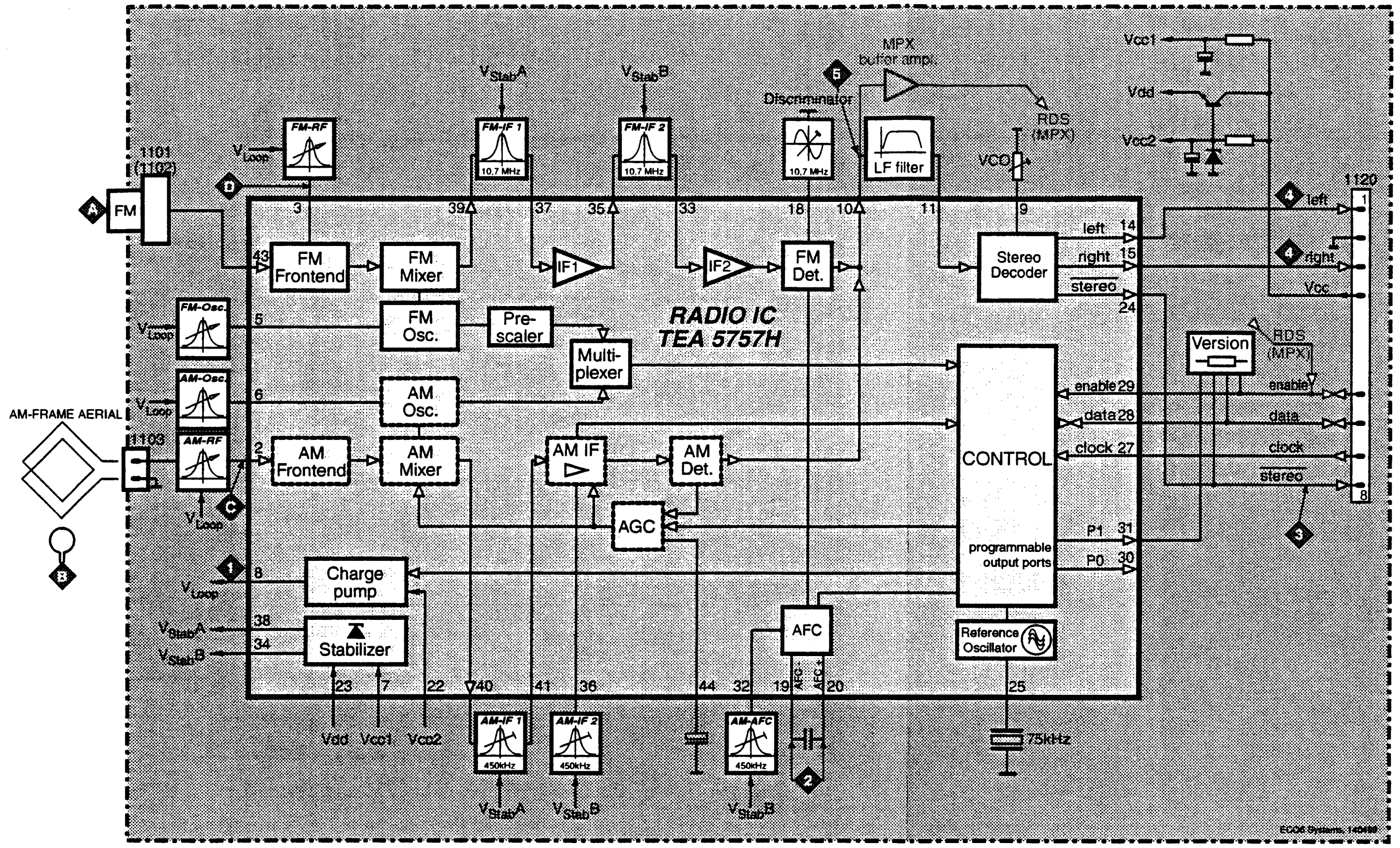
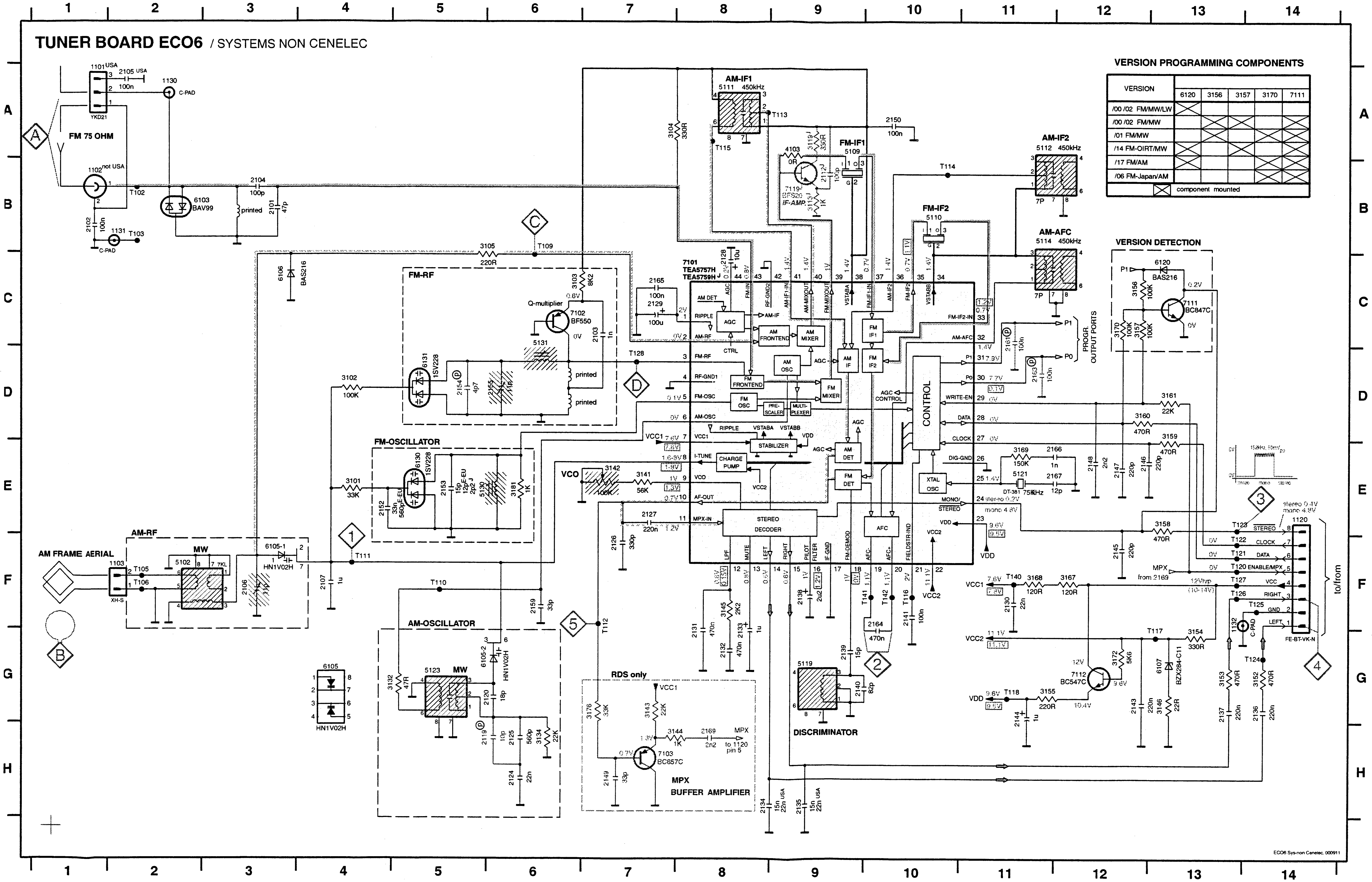
Schematic Diagram..7A-2
Component Layout...7A-3
Adjustment table 7A-3
Electrical Partslist..7A-4

BLOCK DIAGRAM

TUNER BOARD
ECO 6 Systems


FM
1101
(1102)
A
B
C
D
1
2
3
4
5
FM-RF
FM-Osc.
AM-Osc.
AM-RF
V Loop
AM-FRAME AERIAL
1103
FM Frontend
FM Mixer
FM Osc.
Pre-scaler
Multi-plexer
AM Osc.
AM Frontend
AM Mixer
AM IF
AM Det.
AGC
Charge pump
Stabilizer
V Stab A
V Stab B
Vdd
Vcc1
Vcc2
FM-IF 1
FM-IF 2
10,7 MHz
IF1
IF2
FM Det.
Discriminator
MPX buffer ampl.
LF filter
RDS (MPX)
VCO
RADIO IC
TEA 5757H
Stereo Decoder
left
right
stereo
CONTROL
programmable output ports
P1
P0
enable
data
clock
Reference Oscillator
AFC
AFC -
AFC +
AM-IF 1
AM-IF 2
AM-AFC
450kHz
75kHz
Version
Vcc
1120
1
8
3
43
5
6
2
8
38
34
23
7
22
40
41
36
44
32
19
20
39
37
35
33
18
10
11
9
14
15
24
29
28
27
31
30
25
ECO6 Systems, 140499

TUNER BOARD ECO6 / SYSTEMS NON CENELEC


FM 75 OHM
AM FRAME AERIAL
AM-RF
MW
FM-RF
Q-multiplier
FM-OSCILLATOR
VCO
AM-OSCILLATOR
RDS only
MPX BUFFER AMPLIFIER
AM-IF1
5111 450kHz
FM-IF1
5109
FM-IF2
5110
AM-IF2
5112 450kHz
AM-AFC
5114 450kHz
7101 TEA5757H TEA5759H
AGC
AM FRONTEND
AM MIXER
AM OSC
FM FRONTEND
FM OSC
PRE-SCALER
MULTI-PLEXER
FM MIXER
AM IF
FM IF1
FM IF2
STABILIZER
CHARGE PUMP
AM DET
FM DET
STEREO DECODER
AFC
CONTROL
XTAL OSC
DISCRIMINATOR
VERSION DETECTION
PROGR OUTPUT PORTS
P1
P0
to/from
FE-BT-VK-N
STEREO
CLOCK
DATA
ENABLE/MPX
VCC
RIGHT
GND
LEFT
VCC1
VCC2
VDD
7102 BF550
7103 BC857C
7111 BC847C
7112 BC547C
7119 BF520 IF-AMP.
6103 BAV99
6106 BAS216
6120 BAS216
6130 1SV228
6131 1SV228
6105 HN1V02H
6107 BZX284-C11
ECO6 Sys-non Cenelec 000911

VERSION PROGRAMMING COMPONENTS

VERSION	6120	3156	3157	3170	7111
/00 /02 FM/MW/LW	☒				
/00 /02 FM/MW		☒	☒		☒
/01 FM/MW		☒		☒	☒
/14 FM-OIRT/MW	☒		☒		☒
/17 FM/AM	☒			☒	☒
/06 FM-Japan/AM				☒	☒
☒ component mounted					

LEGEND

Ⓟ...for provision only
USA ... for USA version only
E-EU ... for East European version only
J ... for Japanese version only

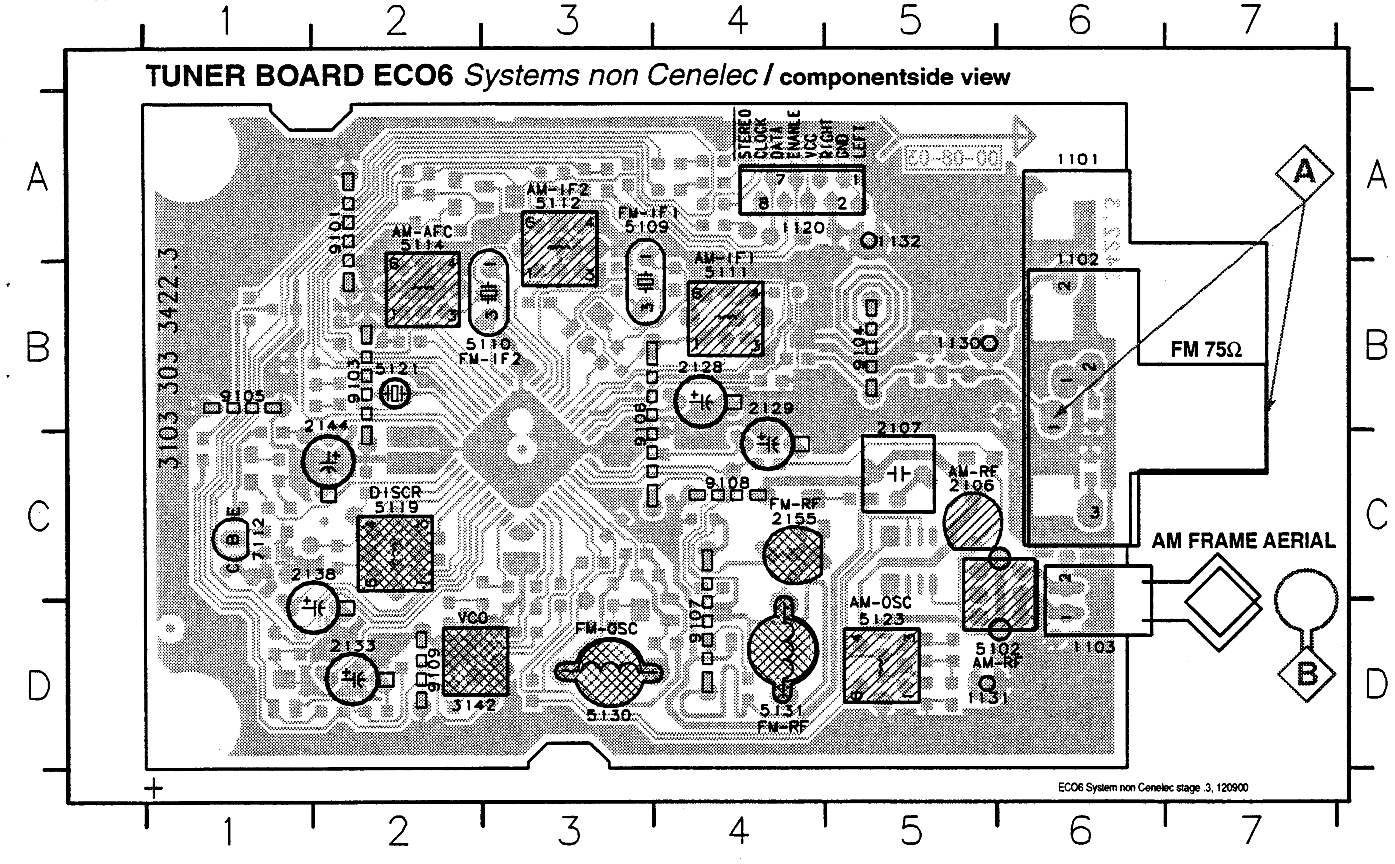
Ⓥ EVM

...V FM mode stereo
...V MW mode
...V LW mode
voltages measured while
set is tuned to a strong transmitter

Signal path
- FM
- AM
- MPX (Audio Frequency)
- ⇨ AF - left/right

1101	A1
1102	B1
1103	F2
1120	E14
1130	A2
1131	B2
1132	G13
2101	B3
2102	B1
2103	C7
2104	B3
2105	A2
2106	F3
2107	F4
2119	H6
2120	G6
2124	H6
2125	H6
2126	F7
2127	E7
2128	C8
2129	C7
2130	F11
2131	G8
2132	G8
2133	G8
2134	H8
2135	H9
2136	G14
2137	G13
2138	F9
2139	G9
2140	G9
2141	F10
2143	G12
2144	G11
2145	F12
2146	E12
2147	E12
2148	E12
2149	H7
2150	A10
2152	E4
2153	E5
2154	D5
2155	D5
2159	F6
2161	C11
2163	D11
2164	F10
2165	C7
2166	E11
2167	E11
2169	H8
3101	E4
3102	D4
3103	C6
3104	A7
3105	B6
3132	G5
3134	H6
3141	E7
3142	E7
3143	G7
3144	H7
3145	F8
3146	G13
3152	G14
3153	G13
3154	G13
3155	G11
3156	C12
3157	C12
3158	E13
3159	D13
3160	D12
3161	D13
3167	F12
3168	F11
3169	E11
3170	C12
3172	G12
3176	G7
3181	E6
5102	F2
5109	B9
5110	B10
5111	A8
5112	A11
5114	B11
5119	G9
5121	E11
5123	G5
5130	E5
5131	C6
6103	B2
6105-1	F3
6105-2	G5
6106	C3
6107	G13
6120	C13
6130	E5
6131	D5
7101	C8
7102	C6
7103	H7
7111	C13
7112	G12
T102	B2
T103	B2
T105	F2
T106	F2
T109	B6
T110	F5
T111	F4
T112	F7
T113	A8
T114	B10
T115	A8
T116	F10
T117	G13
T118	G11
T120	F13
T121	F13
T122	F13
T123	E13
T124	G14
T125	F14
T126	F13
T127	F13
T128	D7
T140	F11
T141	F10
T142	F10

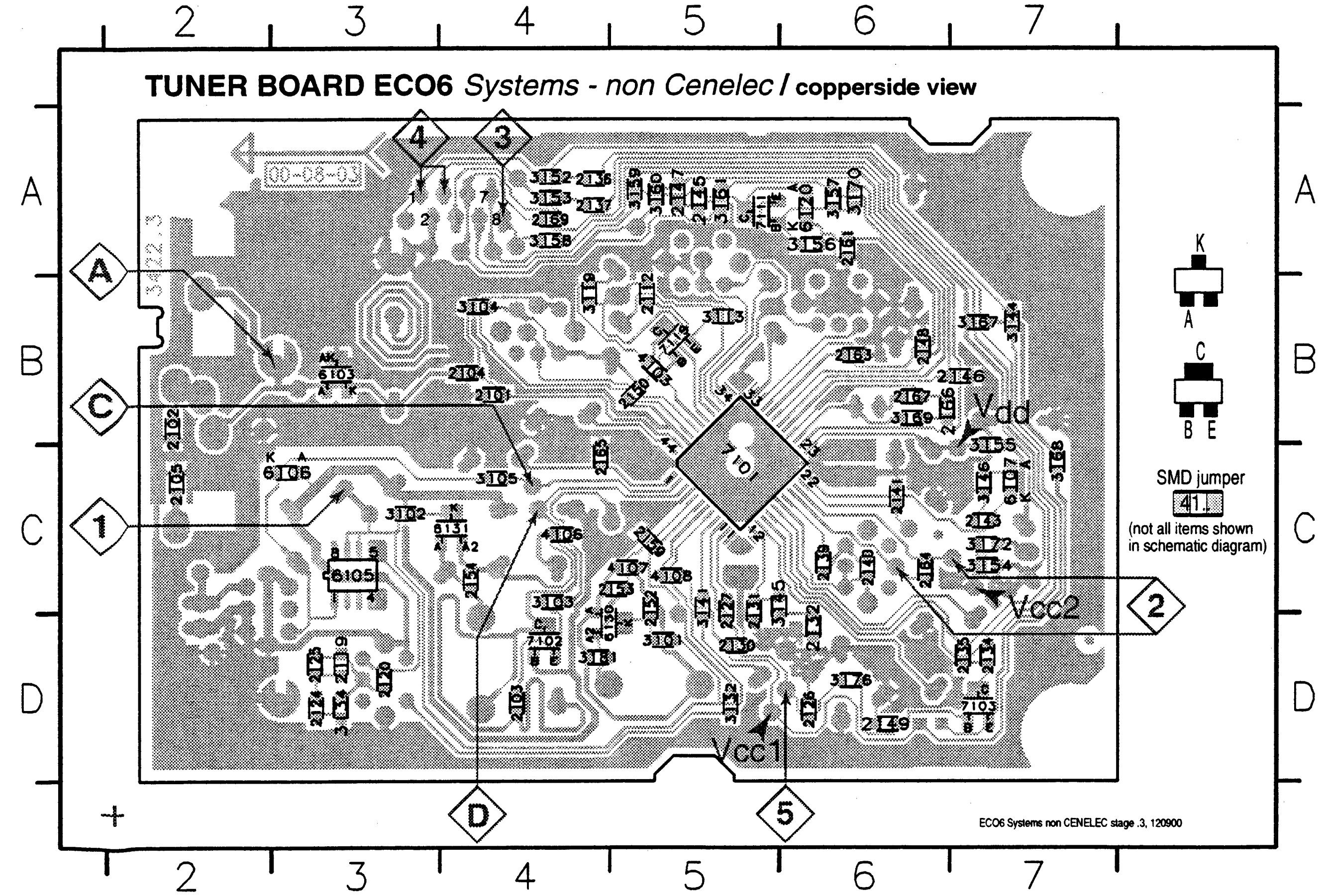
1101	A6	1120	A4	1132	A5	2128	C4	2138	C2	3142	D2	5110	B3	5114	A2	5123	D5	7112	C1	9104	B5	9107	D4
1102	B6	1130	B5	2106	C5	2129	B4	2144	B2	5102	D6	5111	B4	5119	C2	5130	D3	9101	A2	9105	B1	9108	C4
1103	D6	1131	D5	2107	B5	2133	D2	2155	C4	5109	A3	5112	A3	5121	B2	5131	D4	9103	B2	9106	B3	9109	D2



TUNER BOARD ECO6 *Systems non Cenelec* / **componentside view**

1
2
3
4
5
6
7
A
B
C
D
STEREO
CLOCK
DATA
ENABLE
VCC
RIGHT
GND
LEFT
1101
1102
1103
1120
1132
1130
1131
AM-IF2 5112
AM-AFC 5114
FM-IF1 5109
AM-IF1 5111
5110 FM-IF2
5121
9101
9103
9104
9105
9106
9107
9108
9109
2128
2129
2107
2144
DISCR 5119
7112
2138
2133
VCO
3142
FM-OSC
5130
FM-RF 2155
AM-RF 2106
AM-OSC 5123
5102 AM-RF
5131 FM-RF
FM 75Ω
AM FRAME AERIAL
A
B
3103 303 3422.3
ECO6 System non Cenelec stage .3, 120900

2101	B4	2119	D3	2130	D5	2137	A4	2146	B7	2153	C5	2165	C4	3103	C4	3134	D3	3152	A4	3158	A4	3169	B6	4106	C4	6107	C7	7103	D7
2102	B1	2120	D3	2131	C5	2139	C6	2147	A5	2154	C4	2166	B6	3104	B4	3141	C5	3153	A4	3159	A5	3170	A6	4107	C5	6120	A6	7111	A5
2103	D4	2124	D3	2132	D6	2140	C6	2148	B6	2159	C5	2167	B6	3105	C4	3143	D6	3154	C7	3160	A5	3172	C7	4108	C5	6130	D4	7119	B5
2104	B4	2125	D3	2134	D7	2141	C6	2149	D6	2161	A6	2169	A4	3113	B5	3144	B7	3155	C7	3161	A5	3176	D6	6103	B3	6131	C4		
2105	C1	2126	D6	2135	D7	2143	C7	2150	B5	2163	B6	3101	D5	3119	B5	3145	C5	3156	A6	3167	B7	3181	D4	6105	C3	7101	C5		
2112	B5	2127	C5	2136	A4	2145	A5	2152	C5	2164	C6	3102	C3	3132	D5	3146	C7	3157	A6	3168	C7	4103	B5	6106	C3	7102	D4		

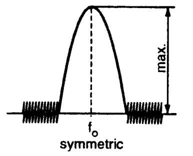
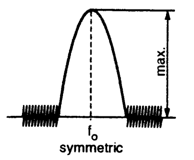


TUNER BOARD ECO6 *Systems - non Cenelec* / **copperside view**

2
3
4
5
6
7
A
B
C
D
4
3
A
C
1
2
D
5
Vdd
Vcc1
Vcc2
7101
K
A
C
B E
SMD jumper
4I1
(not all items shown in schematic diagram)
ECO6 Systems non CENELEC stage .3, 120900

These assembly drawings show a summary of all possible versions.
For components used in a specific version see schematic diagram respectively partslist.

TUNER ADJUSTMENT TABLE (ECO6 FM/MW- and FM/MW/LW - versions with AM-frame aerial)

Waverange	Input frequency	Input	Tuned to	Adjust	Output	Scope/Voltmeter
VARICAP ALIGNMENT						
FM 87.5 - 108MHz (65.81 - 74, 87.5 - 108MHz)			108MHz	5130	◇ 1	8V ±0.2V
			87.5MHz (65.81MHz)	check		4.3V ±0.5V (1.2V ±0.5V)
MW FM/AM-version, 10kHz grid 530 - 1700kHz			1700kHz	5123		8V ±0.2V
			530kHz	check		1.1V ±0.4V
FM/MW-version, 9kHz grid 531 - 1602kHz			1602kHz	5123		6.9V ±0.2V
			531kHz	check		1.1V ±0.4V
LW 153 - 279kHz			279kHz	5122		8V ±0.2V
			153kHz	check		1.1V ±0.4V
MW FM/MW/LW- version, 9kHz grid 531 - 1602kHz			1602kHz	5123		8V ±0.2V
			531kHz	check		1.1V ±0.4V
FM IF						
FM	10.7MHz, 45mV continuous wave	◇ D	IC 7101 21 shortcircuit to block AFC 2141	5119	◇ 2	0 ± 3 mV DC
FM RF						
FM 87.5 - 108MHz (65.81 - 74, 87.5 - 108MHz)	108MHz	◇ A mod=1kHz Δf=±22.5kHz	108MHz	2155	◇ 4	MAX
	87.5MHz (65.81MHz)		87.5MHz (65.81MHz)	5131		
VCO						
FM	98MHz, 1mV continuous wave	◇ A	98MHz	3142	◇ 3	152kHz ±1kHz 1)
AM IF						
MW	450kHz connect pin 6 of IC 7101 (AM Osc.) with 3.3kΩ to Vcc	◇ C Δf=±10kHz V_{RF} = 0.5mV (as low as possible)	IC 7101 36 100nF 220R	5111	◇ 5	
			IC 7101 40 100nF 220R see remark 2)	5112		
AM AFC **MW**		◇ C continuous wave V_{RF} = 2mV		5114	◇ 2	0 ± 2 mV DC
AM RF 3)						
MW 4) FM/MW/LW- and FM/MW-version (9kHz grid) 531 - 1602kHz	1494kHz	◇ B Δf = ±30kHz V_{RF} as low as possible	1494kHz	2106	◇ 5	
	558kHz		558kHz	5102		
LW	198kHz		198kHz	5103		
MW FM/AM-version, 10kHz grid 530 - 1700kHz	1500kHz		1500kHz	2106		
	560kHz		560kHz	5102		

ECO6. Sys + PA with frame aerial. 070799

Use Service Testprogram. By selecting the TUNER TEST test frequencies will be stored as preset frequencies automatically.

1) If sensitivity of frequency counter is too low adjust to max. channel separation (input signal: stereo left 90% + 9%, adjust output on right channel to minimum)

2) RC network serves for damping the IF-filter while adjusting the other one.

3) For AM RF adjustments the original frame antenna has to be used !

4) MW has to be aligned before LW.

↕ Repeat

MISCELLANEOUS

101	2422 015 19376	SOCKET 2P CLICKFIT	USA only
102	4822 267 10283	SOCKET COAX, IEC 75Ω	not USA
103	4822 265 31184	JST CONNECTOR 2 POLE	
120	4822 265 11515	FFC SOCKET, 8P	

CAPACITORS

2101©	4822 126 13692	47pF	1%	63V	
2102©	4822 126 13838	100nF	10%	50V	not USA
2103©	5322 122 31647	1nF	10%	63V	
2104©	5322 122 32531	100pF	5%	50V	
2105©	4822 126 13838	100nF	10%	50V	USA only
2106	2020 800 00191	3-11pF TRIMCAP.,N450			
2107	4822 121 51319	1µF	20%	50V	
2120©	4822 126 13689	18pF	1%	63V	
2124©	5322 122 32654	22nF	10%	63V	
2125©	2020 552 96199	560pF	1%	50V	
2126©	5322 122 31863	330pF	5%	50V	
2127©	4822 126 14076	220nF	20%	25V	
2128	4822 124 40248	10µF	20%	63V	
2129	4822 124 41584	100µF	20%	10V	
2130©	5322 122 32654	22nF	10%	63V	
2131©	4822 126 13482	470nF	20%	16V	
2132©	4822 126 13482	470nF	20%	16V	
2133	4822 124 21913	1µF	20%	63V	
2134©	4822 126 13188	15nF	5%	63V	not USA
2134©	5322 122 32654	22nF	10%	63V	USA only
2135©	4822 126 13188	15nF	5%	63V	not USA
2135©	5322 122 32654	22nF	10%	63V	USA only
2136©	4822 126 14076	220nF	20%	25V	
2137©	4822 126 14076	220nF	20%	25V	
2138	4822 124 22652	2,2µF	20%	50V	
2139©	4822 126 14236	15pF	5%	50V	
2140©	4822 126 13695	82pF	1%	63V	
2141©	4822 126 13838	100nF	10%	50V	
2143©	4822 126 14076	220nF	20%	25V	
2144	4822 124 21913	1µF	20%	63V	
2145©	4822 122 33575	220pF	5%	50V	
2146©	4822 122 33575	220pF	5%	50V	
2147©	4822 122 33575	220pF	5%	50V	
2148©	4822 122 33127	2,2nF	10%	63V	
2149©	5322 122 32659	33pF	5%	50V	RDS only
2150©	4822 126 13838	100nF	10%	50V	
2152©	4822 126 12105	33nF	5%	63V	not for East Europe
2152©	5322 116 80853	560pF	5%	63V	for East Europe only
2153©	4822 126 13486	15pF	2%	63V	not for East Europe
2153©	4822 122 33926	12pF	2%	50V	for East Europe only
2155	2020 800 00191	3-11pF TRIMCAP.,N450			
2159©	5322 122 32659	33pF	5%	50V	
2164©	4822 126 13482	470nF	20%	16V	
2165©	4822 126 13838	100nF	10%	50V	
2166©	5322 122 31647	1nF	10%	63V	
2167©	4822 122 33926	12pF	5%	50V	
2169©	4822 122 33127	2,2nF	10%	63V	RDS only

RESISTORS

3101©	4822 051 20333	33kΩ	5%	0,1W	
3102©	4822 117 10837	100kΩ	1%	0,1W	
3103©	4822 051 20822	8,2kΩ	5%	0,1W	
3104©	4822 117 13577	330Ω	1%	0,1W	
3105©	4822 117 11503	220Ω	5%	0,1W	
3132©	4822 051 20479	47Ω	5%	0,1W	
3134©	4822 051 20223	22kΩ	5%	0,1W	
3141©	4822 117 11148	56kΩ	1%	0,1W	
3142	4822 100 12159	TRIMPOT. 100kΩ			
3143©	4822 051 20223	22kΩ	5%	0,1W	RDS only
3144©	4822 051 10102	1kΩ	2%	0,25W	RDS only
3145©	4822 117 11449	2,2kΩ	1%	0,1W	
3146©	4822 051 20229	22Ω	5%	0,1W	
3152©	4822 051 20471	470Ω	5%	0,1W	
3153©	4822 051 20471	470Ω	5%	0,1W	
3154©	4822 117 13577	330Ω	1%	0,1W	
3155©	4822 117 11503	220Ω	5%	0,1W	
3156©	4822 117 10837	100kΩ	1%	0,1W	
3157©	4822 117 10837	100kΩ	1%	0,1W	
3158©	4822 051 20471	470Ω	5%	0,1W	
3159©	4822 051 20471	470Ω	5%	0,1W	
3160©	4822 051 20471	470Ω	5%	0,1W	
3161©	4822 051 20223	22kΩ	5%	0,1W	
3167©	4822 051 20121	120Ω	5%	0,1W	
3168©	4822 051 20121	120Ω	5%	0,1W	
3169©	4822 051 20154	150kΩ	5%	0,1W	
3170©	4822 117 10837	100kΩ	1%	0,1W	
3172©	4822 051 20562	5,6kΩ	5%	0,1W	
3176©	4822 051 20333	33kΩ	5%	0,1W	RDS only
3181©	4822 051 10102	1kΩ	2%	0,25W	
4103©	4822 051 20008	CHIP JUMPER 0805			
4106©	4822 051 20008	CHIP JUMPER 0805			
4107©	4822 051 20008	CHIP JUMPER 0805			
4108©	4822 051 20008	CHIP JUMPER 0805			

COILS

5102	4822 157 71634	RF-COIL MW
5109	4822 242 70665	FM-IF FILTER 10,7MHz
5110	4822 242 70665	FM-IF FILTER 10,7MHz
5111	2422 549 44023	AM-IF FILTER 450kHz
5112	4822 157 70302	AM-IF FILTER 450kHz
5114	4822 157 70302	AM-IF FILTER 450kHz
5119	4822 157 11443	DISCRIMINATOR COIL
5121	4822 242 10261	QUARTZ 75kHz
5123	2422 549 44108	RF-COIL, AM-OSCILLATOR
5130	4822 157 11843	RF COIL 1,5 TURNS
5131	4822 157 11843	RF COIL 1,5 TURNS

DIODES

6103©	5322 130 34337	BAV99
6105©	4822 130 83075	HN1V02H
6106©	4822 130 83757	BAS216
6107©	9340 386 90115	BZX284-C11
6120©	4822 130 83757	BAS216
6130©	4822 130 82833	1SV228
6131©	4822 130 82833	1SV228

TRANSISTORS

7102	4822 130 42131	BF550	
7103©	5322 130 42756	BC857C	RDS only
7111©	5322 130 42755	BC847C	
7112	4822 130 44503	BC547C	

INTEGRATED CIRCUITS

7101©	9351 740 80557	TEA5757H/V1, RADIO IC

AF11 BOARD

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BRIEF INTRODUCTION OF THE AF11 BOARD

The AF11 Board consists of the following features :

a. TDA7468D IC

TDA7468D IC (7501) which includes functions such as source selection, loudness control, dynamic bass control, treble control, volume control and muting function. Sound features such as ALC, DBB, DSC and IS are controllable via I²C Bus from the microprocessor.

The TDA7468D IC caters for 4 input sources namely TUNER, PC LINK, CD and AUX. It also has a Mic mix input. In our application, software will switch the input source to previous source MUTE during STANDBY mode and some other occasions where noise from other input sources is undesirable.

Note that the input to the TDA7468D IC must be ac coupled to prevent 'polp' noise.
Input networks are included to provide appropriate attenuation for various sources.

b. SIMPLE MIC MIXING

The AF11 Board has provisions which can be configured to cater for one of the following:
MM : which caters for Mic mixing with additional Mic amplifier board.
NM : non Mic mixing.

c. LINE OUT

Line out cinch socket for connection to external amplifier.

d. SUB-WOOFER OUT

Sub-woofer out cinch socket for connection to active sub-woofer speaker.

e. INCREDIBLE SURROUND

Incredible surround effect using transistor circuit to create phase shifting and spatial effect.

f. HEADPHONE AMPLIFIER

Headphone amplifier to drive 32 ohm to 1kohm headphone.

g. CD STANDBY CONTROL

CD Standby Control circuit which switches on the supply to CD servo control IC, digital out buffer IC, HF circuit and the laser light pen in CD mode only.

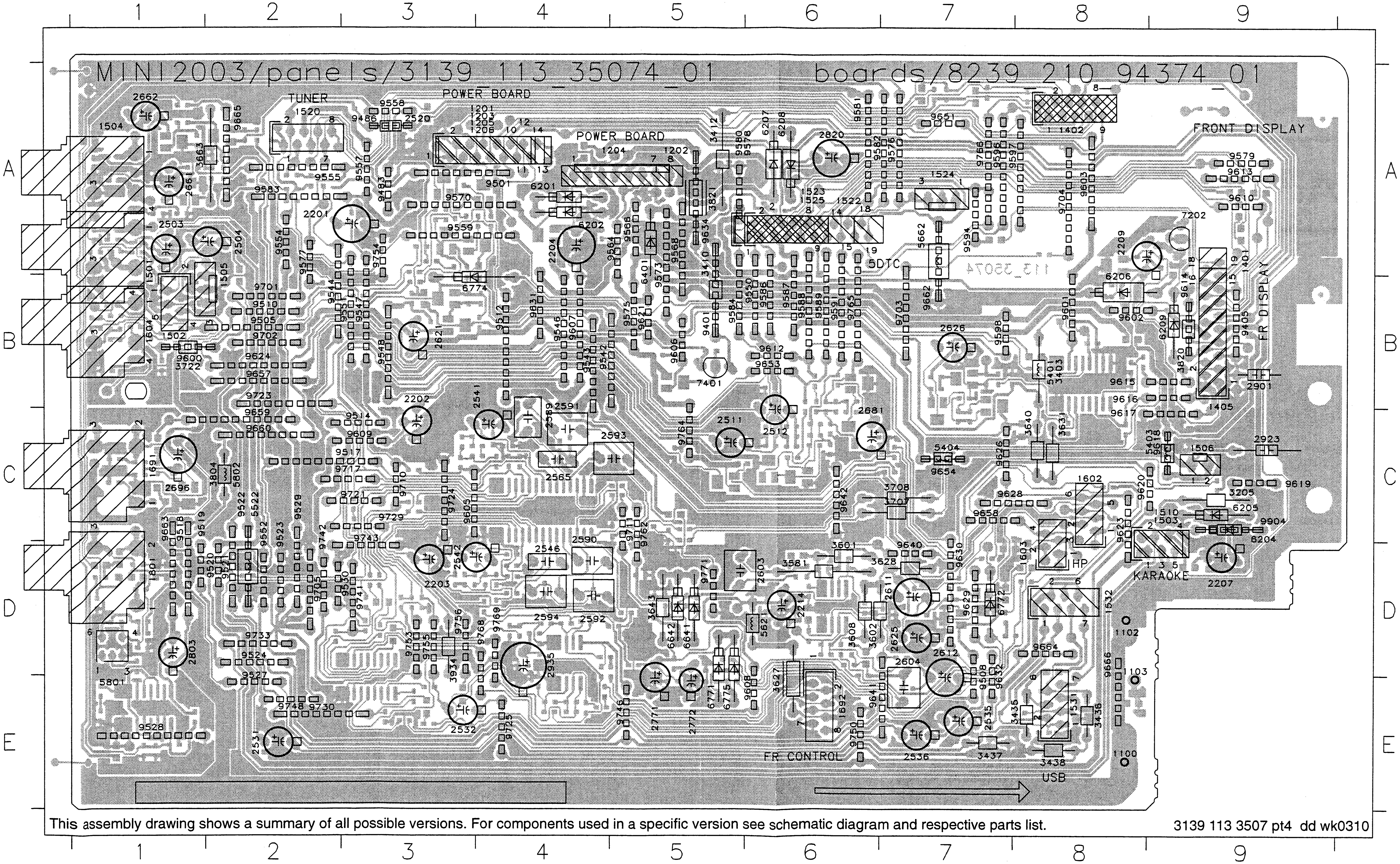
h. ATTENUATION NETWORK

Attenuation network is provided at the output of the AF11 Board for interfacing with power board of different output power.

i. CD DIGITAL OUT

CD Digital out cinch socket for connection to external digital audio decoders.

AF11 BOARD - COMPONENT LAYOUT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TUNER
POWER BOARD
POWER BOARD
FRONT DISPLAY
FR DISPLAY
SDTC
113_35074
HP
KARAOKE
FR CONTROL
USB
1
2
3
4
5
6
7
8
9
A
B
C
D
E

This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

3139 113 3507 pt4 dd wk0310

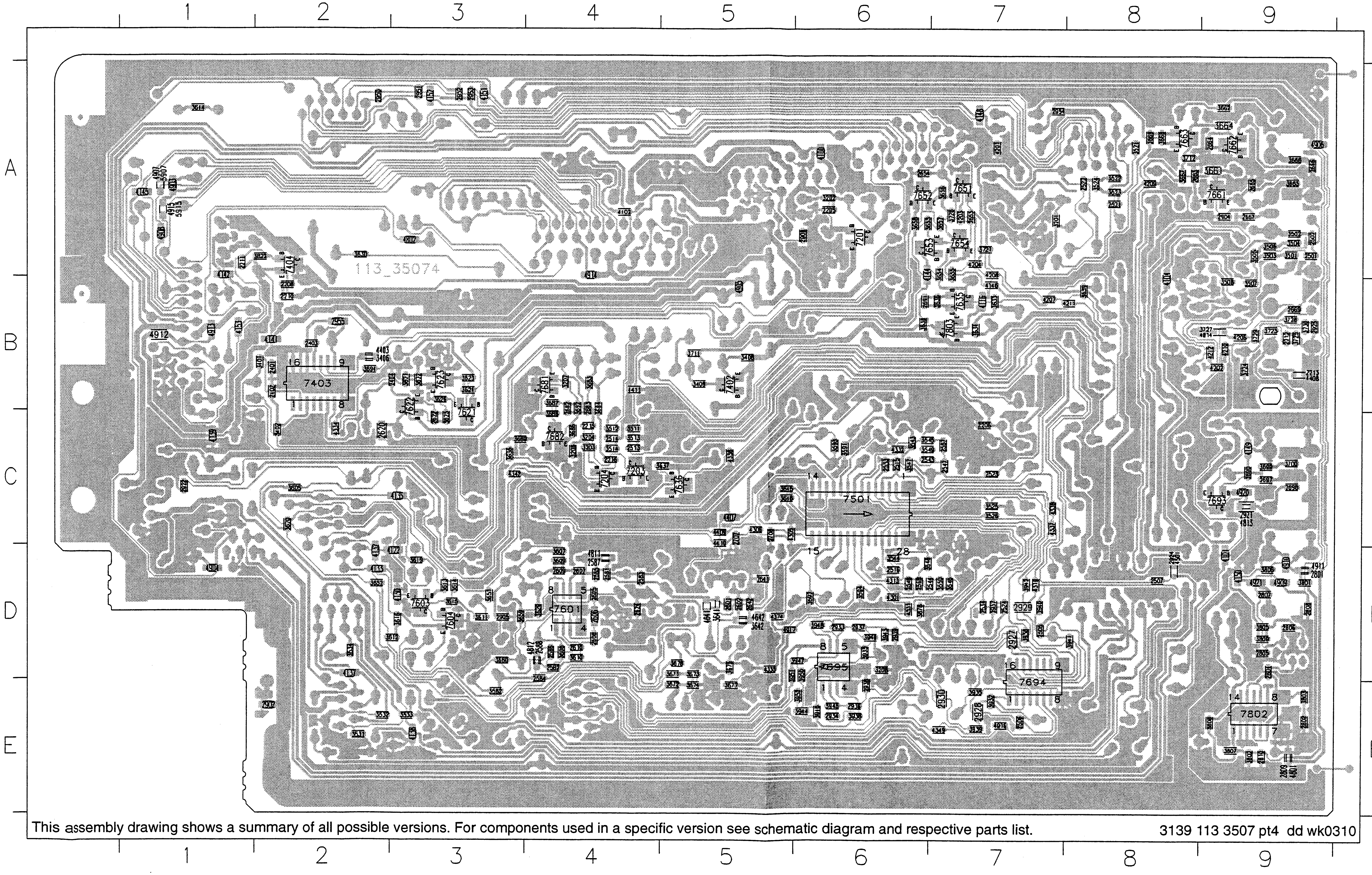
AF11 BOARD - COMPONENT LAYOUT (MAPPING)

1100	E8	1504	A1	1692	E6	2532	E3	2611	D7	2935	D4	3631	C8	5621	D6	6771	E5	9514	C3	9544	B2	9570	A3	9589	B6	9610	A9	9629	D7	9662	B7	9724	C3	9762	C5
1102	D8	1505	B2	1801	D1	2535	E7	2612	D7	3205	C9	3640	C8	5662	A7	6772	D7	9517	C3	9546	B4	9573	B5	9591	B6	9612	B6	9630	D7	9663	C1	9725	E4	9764	C5
1103	D8	1506	C9	2201	A2	2536	E7	2621	B3	3403	B8	3643	D5	5801	E1	6774	B3	9518	C1	9547	B3	9575	B5	9594	A7	9613	A9	9631	B4	9664	D8	9729	C3	9765	B6
1201	A4	1510	C9	2202	B3	2541	B4	2625	D7	3410	A5	3663	A1	5802	C2	6775	E5	9519	C1	9548	B3	9576	A7	9596	A7	9614	B9	9632	E7	9665	A2	9730	E2	9766	A7
1202	A5	1520	A2	2203	D3	2542	D3	2626	B7	3412	A5	3707	C7	6201	A4	7202	A9	9520	D2	9550	B6	9577	A2	9597	A7	9615	B8	9634	A5	9666	D8	9733	D2	9768	D4
1203	A4	1522	A6	2204	A4	2546	D4	2661	A1	3435	E8	3708	C7	6202	A4	7401	B5	9521	D2	9551	B3	9578	A6	9598	B7	9616	B8	9640	D7	9701	B2	9741	D3	9769	D4
1204	A5	1523	A6	2207	D9	2565	C4	2662	A1	3436	E8	3722	B1	6204	C9	9401	B5	9522	C2	9552	C2	9579	A9	9600	B1	9617	C8	9641	E6	9702	B2	9742	C2	9771	D5
1205	A4	1524	A7	2209	A8	2589	C4	2681	C6	3437	E7	3804	C2	6205	C9	9405	B9	9523	C2	9554	A2	9580	A5	9601	B8	9618	C9	9642	C6	9703	B7	9743	C3	9904	C9
1206	A4	1525	A6	2214	D6	2590	C4	2696	C1	3438	E8	3820	B9	6206	B8	9483	A3	9524	D2	9555	A2	9581	A6	9602	B8	9619	C9	9651	A7	9704	A8	9746	E5		
1401	A9	1531	E8	2503	A1	2591	B4	2771	E5	3581	D6	3821	A5	6207	A6	9486	A3	9527	E2	9557	A3	9582	A6	9603	A8	9620	C8	9653	B6	9705	D2	9748	E2		
1402	A8	1532	D8	2504	A2	2592	D4	2772	E5	3601	D6	3934	D3	6208	A6	9501	A4	9528	E1	9558	A3	9583	A2	9605	C3	9621	B5	9654	C7	9710	C3	9750	E6		
1405	B9	1602	C8	2511	C5	2593	C5	2803	D1	3602	D6	5401	B8	6209	B9	9505	B2	9529	C2	9559	A3	9584	B5	9606	B5	9623	C8	9657	B2	9711	C5	9753	D3		
1501	A1	1603	D8	2512	C6	2594	D4	2820	A6	3608	D6	5403	C9	6401	A5	9508	E7	9530	D3	9564	A5	9586	B6	9607	B4	9624	B2	9658	C7	9717	C3	9754	A3		
1502	B1	1604	B1	2520	A3	2603	D6	2901	B9	3627	E6	5404	C7	6641	D5	9510	B2	9542	B4	9566	A5	9587	B6	9608	E6	9626	C7	9659	C2	9721	C3	9755	D3		
1503	C9	1691	C1	2531	E2	2604	D7	2923	C9	3628	D7	5522	C2	6642	D5	9512	B4	9543	B4	9568	A5	9588	B6	9609	C3	9628	C7	9660	C2	9723	B2	9756	D3		

AF11 BOARD - CHIP LAYOUT (MAPPING)

2205	A6	2516	D6	2601	D5	2682	B4	2922	C1	3203	C4	3514	C4	3592	D6	3626	B3	3657	A7	3684	B4	3801	D9	3945	E6	4141	B2	4212	B9	4411	B4	4914	A4	7635	B7
2206	C7	2521	A8	2602	D5	2683	B4	2924	D8	3204	C4	3521	A8	3593	C6	3629	D4	3658	A6	3686	C4	3802	E9	3946	E6	4142	A1	4301	D6	4501	D8	4915	A1	7636	C5
2208	B2	2522	A8	2605	D4	2691	B6	2925	B9	3206	C4	3522	A8	3594	D6	3630	A2	3659	D3	3687	B4	3803	E9	3947	D6	4144	A6	4305	C5	4641	D5	4916	E7	7651	A7
2210	B2	2523	C7	2606	D4	2697	C9	2927	D7	3207	B4	3523	A8	3605	C2	3633	B7	3660	D3	3688	C4	3805	D9	3948	D6	4145	A1	4306	C5	4642	D5	4917	D5	7652	A6
2211	A1	2524	D7	2607	D4	2698	C9	2928	E7	3208	D6	3524	A8	3606	D4	3634	B7	3661	A9	3689	C3	3806	D9	3949	D6	4146	B7	4313	D6	4801	E9	4920	C9	7653	A6
2212	B9	2533	C6	2608	D4	2707	C5	2929	D7	3401	B2	3525	C7	3607	D4	3635	C3	3662	A9	3690	C9	3807	E9	3950	D6	4148	A7	4319	D7	4802	A3	4921	D9	7654	A7
2213	B9	2534	D7	2609	D4	2708	C5	2930	E7	3402	C2	3526	C7	3609	D4	3636	B7	3664	A9	3692	B4	3808	E9	3951	D5	4149	C9	4331	D6	4811	D4	5907	A1	7661	A9
2215	C4	2543	C6	2610	D4	2801	D9	2933	D6	3406	B2	3531	E2	3610	D4	3637	C5	3665	A9	3694	B2	3809	D9	3952	E6	4150	D9	4332	C6	4812	D4	5915	A1	7662	A9
2216	C4	2544	D7	2620	C2	2802	E9	2934	E6	3408	B5	3532	E2	3611	D3	3638	B6	3666	A9	3699	C9	3822	A2	4100	A6	4151	A3	4333	D5	4813	C9	7201	A6	7663	A8
2401	B2	2547	C7	2622	C3	2804	D9	2936	E6	3409	B5	3533	E3	3612	D3	3639	B8	3667	A8	3700	C9	3932	E7	4101	D9	4152	A3	4334	C2	4814	B9	7203	C4	7681	B4
2402	B2	2548	D6	2624	D4	2805	D9	2937	D6	3501	A9	3534	D2	3613	D3	3641	D5	3668	A8	3711	B5	3933	D6	4102	A4	4153	B1	4336	C5	4903	A1	7204	C4	7682	C4
2403	B2	2567	C7	2641	D5	2806	D9	2938	E6	3502	A9	3543	C6	3614	D3	3642	D5	3669	A8	3712	A8	3935	E7	4104	B8	4201	A7	4337	C7	4904	D1	7402	B5	7693	C9
2404	B3	2568	D6	2642	D5	2807	D9	2939	D6	3503	A9	3544	D6	3615	D3	3644	A1	3671	D5	3721	A7	3936	E6	4116	B7	4202	B9	4338	C7	4905	B5	7403	B2	7694	E7
2501	A9	2581	D4	2653	A7	2808	D9	2950	A2	3504	A9	3545	C6	3616	D3	3645	C5	3672	E5	3723	B9	3937	D7	4122	D3	4203	A7	4342	C3	4906	A9	7404	A2	7695	D6
2502	A9	2582	D4	2654	A6	2809	E9	2951	A3	3505	A9	3546	D7	3619	D3	3646	C5	3673	D5	3724	B9	3938	D7	4130	D3	4204	A7	4349	E7	4907	A1	7501	C6	7802	E9
2505	D7	2583	D4	2663	A8	2810	E9	2952	A3	3506	A9	3547	C6	3620	C2	3651	D3	3674	E5	3725	B9	3939	E7	4132	D2	4206	B9	4374	D5	4908	A1	7601	D4	7803	B7
2506	E7	2584	D4	2664	A9	2902	E2	2953	A3	3507	B9	3548	D6	3621	B3	3652	D2	3675	D5	3726	A7	3940	D7	4133	D2	4207	B7	4403	B2	4909	D9	7603	D3		
2507	D8	2585	D4	2665	A9	2904	A9	2954	A7	3508	B9	3549	C6	3622	B3	3653	A6	3676	D6	3727	B9	3941	D8	4135	C3	4208	A7	4407	C5	4910	D9	7604	D3		
2513	C4	2586	D4	2666	A9	2905	D3	2955	B2	3511	C4	3550	D7	3623	B3	3654	A7	3677	E5	3728	B9	3942	D7	4137	D2	4209	A8	4408	B9	4911	D9	7621	C3		
2514	C4	2587	D4	2667	A9	2908	A6	3201	A7	3512	C4	3582	E3	3624	B3	3655	A7	3678	D5	3729	B9	3943	D6	4138	E3	4210	B9	4409	C5	4912	B1	7622	B3		
2515	C6	2588	D4	2669	B9	2921	C9	3202	A6	3513	C4	3591	C6	3625	C3	3656	A7	3683	B4	3730	B9	3944	E6	4139	C1	4211	B8	4410	C5	4913	B1	7623	B3		

AF11 BOARD - CHIP LAYOUT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A
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C
D
E
113_35074
7403
7501
7601
7694
7802
7201
7202
7203
7204
7404
7621
7622
7623
7636
7651
7652
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7654
7655
7661
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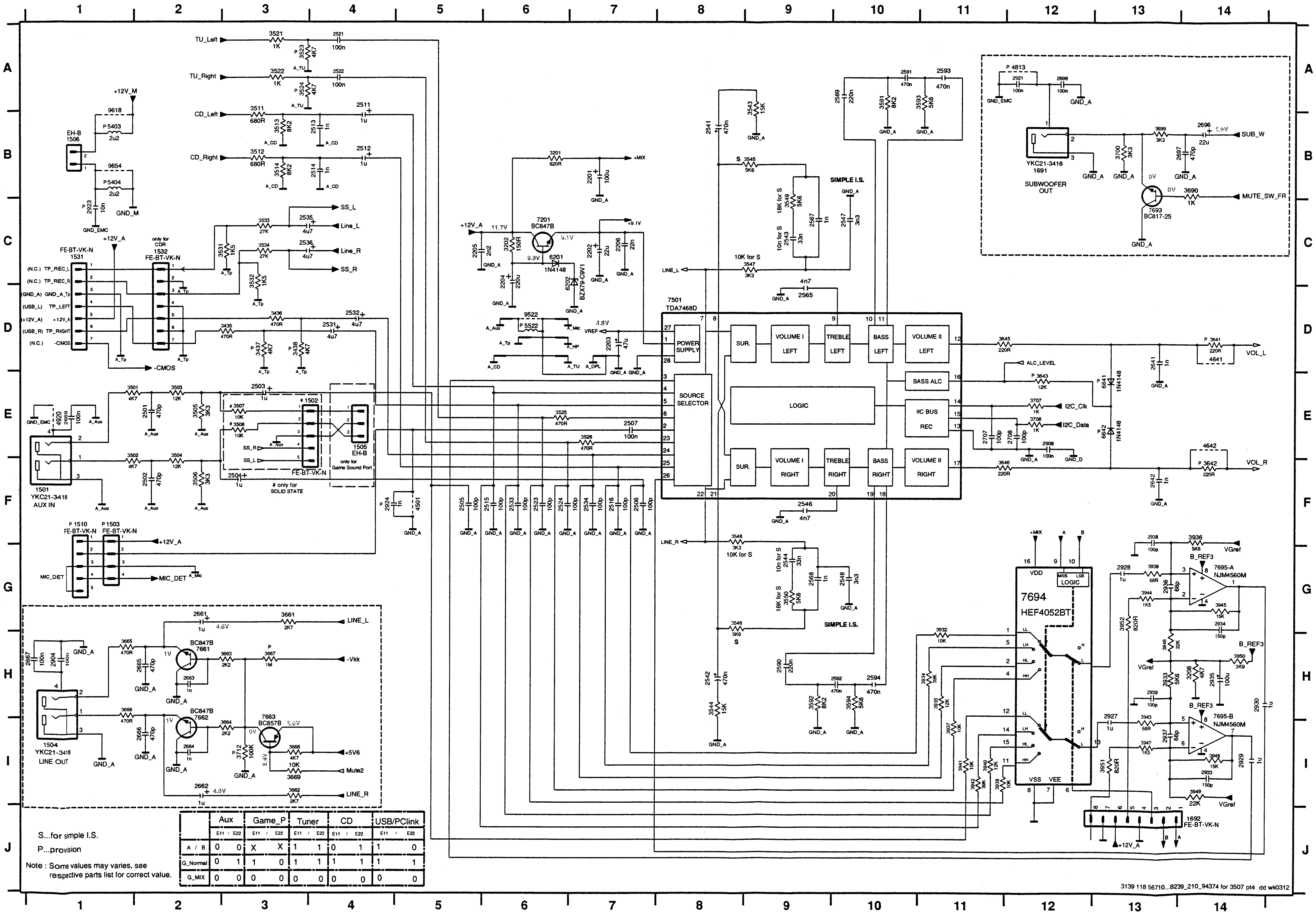
7663
7681
7682
7693
7603
7604
7695
7803

This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

3139 113 3507 pt4 dd wk0310

AF11 BOARD - CIRCUIT DIAGRAM (PART 1)


1
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9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
TU_Left
TU_Right
CD_Left
CD_Right
3521 1K
2521 100n
3522 1K
2522 100n
3523 4K7
3524 4K7
A_TU
3511 680R
3512 680R
3513 8K2
3514 8K2
2513 1n
2514 1n
2511 1u
2512 1u
A_CD
+12V_M
9618
P 5403 2u2
9654
P 5404 2u2
EH-B 1506
P 2923 10n
GND_EMC
GND_M
SS_L
Line_L
Line_R
SS_R
3533 27K
3534 27K
2535 4u7
2536 4u7
3531 1K5
3532 1K5
A_Tp
+12V_A
FE-BT-VK-N 1531
only for CDR 1532 FE-BT-VK-N
(N.C.) TP_REC_L
(N.C.) TP_REC_R
(GND_A) GND_A_Tp
(USB_L) TP_LEFT
(+12V_A) +12V_A
(USB_R) TP_RIGHT
(N.C.) -CMOS
-CMOS
3435 470R
3436 470R
3437 4K7
3438 4K7
2531 4u7
2532 4u7
3501 4K7
3502 4K7
3503 12K
3504 12K
2501 470p
2502 470p
3505 3K3
3506 3K3
A_Aux
2503 1u
2504 1u
# 3507 10K
# 3508 10K
# 1502
FE-BT-VK-N
# only for SOLID STATE
1505 EH-B
only for Game Sound Port
4920
2669 100n
1501 YKC21-3418 AUX IN
P 1510 FE-BT-VK-N
P 1503 FE-BT-VK-N
+12V_A
MIC_DET
A_Mic
P 2924 1n
4501
GND_A
3201 820R
+MIX
2201 100u
+12V_A
11.7V
2205 2n2
3202 150R
7201 BC847B
9.1V
9.3V
6201 1N4148
2204 220u
6202 BZX79-C9V1
2202 22u
2206 22n
+9.1V
9522
P 5522
A_Aux
A_Tp
A_CD
A_HP
A_TU
A_DPL
4.8V VREF
2203 47u
2505 100p
2515 100p
2533 100p
2523 100p
2524 100p
2534 100p
2516 100p
2506 100p
3525 470R
3526 470R
2507 100n
LINE_L
LINE_R
2541 470n
3543 15K
S 3545 5K6
18K for S 3549 5K6
10n for S 2543 33n
2567 1n
10K for S 3547 3K3
SIMPLE I.S.
2547 3K3
2565 4n7
7501 TDA7468D
POWER SUPPLY
SOURCE SELECTOR
SUR.
VOLUME I LEFT
TREBLE LEFT
BASS LEFT
VOLUME II LEFT
BASS ALC
LOGIC
IIC BUS REC
VOLUME I RIGHT
TREBLE RIGHT
BASS RIGHT
VOLUME II RIGHT
2546 4n7
3548 3K3 10K for S
10n for S 2544 33n
18K for S 3550 5K6
2568 1n
2548 3K3
3546 5K6 S
2542 470n
3544 15K
2590 220n
2592 470n
2594 470n
3592 8K2
3594 5K6
2589 220n
2591 470n
2593 470n
3591 8K2
3593 5K6
3645 220R
P 3641 220R
4641
VOL_L
2641 1n
ALC_LEVEL
P 3643 12K
6641 1N4148
6642 1N4148
3707 1K
3708 1K
I2C_Clk
I2C_Data
2707 100p
2708 100p
2908 100n
GND_D
3646 220R
P 3642 220R
4642
VOL_R
2642 1n
P 4813
2921 100n
2698 100n
1 YKC21-3416 1691
SUBWOOFER OUT
3700 3K3
3699 3K3
2697 470p
2696 22u
5.9V
SUB_W
3690 1K
MUTE_SW_FR
7693 BC817-25
+MIX
7694 HEF4052BT
VDD
VSS
VEE
MSB LSB LOGIC
3932 10K
3934 39K
3935 12K
3937 10K
3941 10K
3942 10K
3940 12K
3938 10K
3952 820R
3951 820R
2928 1u
3939 68R
2936 68p
3944 1K5
7695-A NJM4560M
3945 15K
2934 150p
2938 100p
3936 5K6
VGref
B_REF3
3950 3K9
3946 22K
3933 5K6
3208 4K7
2935 100u
2939 100p
2927 1u
3943 68R
2937 68p
7695-B NJM4560M
3947 1K5
3948 15K
2933 150p
3949 22K
2929 1u
2930 1u
1692 FE-BT-VK-N
+12V_A
2661 1u
4.6V
3661 2K7
LINE_L
2667 100n
2904 100n
3665 470R
2665 470p
BC847B 7661
3663 2K2
2663 1n
P 3667 1M
-Vkk
3666 470R
2666 470p
BC847B 7662
2664 1n
3664 2K2
7663 BC857B
3712 100K
3668 4K7
+5V6
3669 10K
Mute2
2662 1u
4.8V
3662 2K7
LINE_R
1504 YKC21-3418 LINE OUT
3139 118 56710...8239_210_94374 for 3507 pt4 dd wk0312

S...for simple I.S.

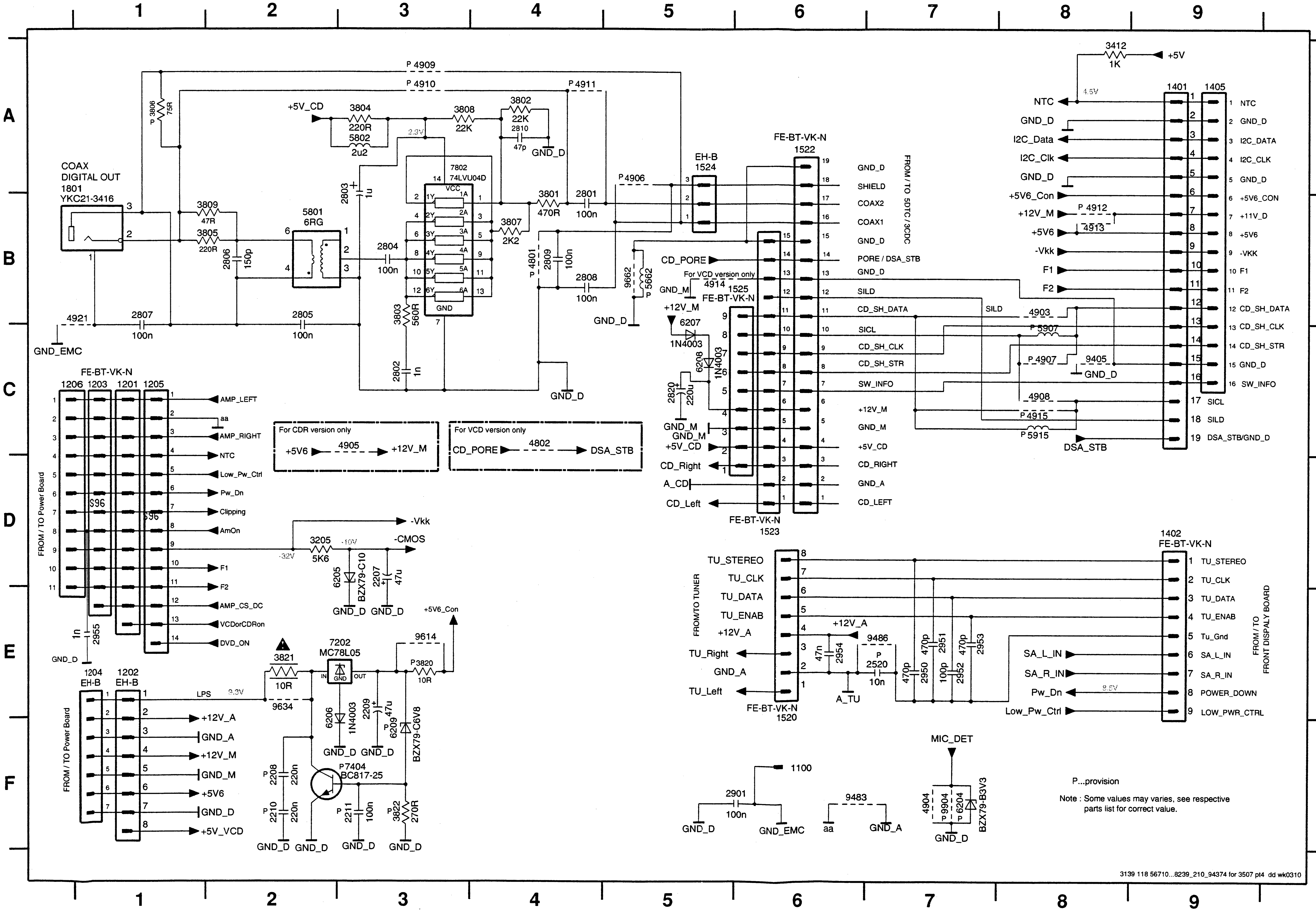
P...provision

Note : Some values may varies, see respective parts list for correct value.

	Aux		Game_P		Tuner		CD		USB/PClink	
	E11	E22	E11	E22	E11	E22	E11	E22	E11	E22
A / B	0	0	X	X	1	1	0	1	1	0
G_Normal	0	1	1	0	1	1	1	1	1	1
G_MIX	0	0	0	0	0	0	0	0	0	0

1501	F1
1502	E3
1503	F1
1504	I1
1505	E4
1506	B1
1510	F1
1531	C1
1532	C2
1691	B12
1692	J14
2201	B7
2202	C7
2203	D7
2204	C6
2205	C5
2206	C7
2501	E2
2502	F2
2503	E3
2504	F3
2505	F5
2506	F7
2507	E7
2511	A4
2512	B4
2513	B4
2514	B4
2515	F6
2516	F7
2521	A4
2522	A4
2523	F6
2524	F6
2531	D4
2532	D4
2533	F6
2534	F7
2535	C3
2536	C3
2541	B8
2542	H8
2543	C9
2544	G9
2546	F9
2547	C10
2548	G10
2565	D9
2567	C9
2568	G9
2589	A10
2590	H9
2591	A10
2592	H10
2593	A11
2594	H10
2641	D13
2642	F13
2661	G2
2662	I2
2663	H2
2664	I2
2665	H2
2666	I2
2667	H1
2669	E1
2696	B14
2697	B13
2698	A12
2707	E11
2708	E12
2904	H1
2908	E12
2921	A12
2923	C1
2924	F5
2927	I13
2928	G13
2929	I14
2930	H14
2933	I14
2934	G14
2935	H14
2936	G13
2937	I13
2938	F13
2939	H13
3201	B6
3202	C6
3208	H14
3435	D3
3436	D3
3437	D3
3438	D3
3501	E1
3502	F1
3503	E2
3504	F2
3505	E2
3506	F2
3507	E3
3508	E3
3511	A3
3512	B3
3513	B3
3514	B3
3521	A3
3522	A3
3523	A3
3524	A3
3525	E6
3526	E7
3531	C3
3532	C3
3533	C3
3534	C3
3543	A9
3544	H8
3545	B9
3546	G8
3547	C9
3548	F8
3549	C9
3550	G9
3591	A10
3592	H9
3593	A11
3594	H10
3641	D14
3642	F14
3643	E12
3645	D11
3646	F11
3661	G3
3662	I3
3663	H3
3664	I3
3665	H1
3666	H1
3667	H3
3668	I3
3669	I3
3690	B14
3699	B13
3700	B13
3707	E12
3708	E12
3712	I3
3932	H11
3933	H13
3934	H11
3935	H11
3936	F13
3937	I11
3938	I11
3939	G13
3940	I11
3941	I11
3942	I11
3943	H13
3944	G13
3945	G14
3946	H13
3947	I13
3948	I14
3949	I14
3950	H14
3951	I13
3952	G13
4501	F5
4641	D14
4642	E14
4813	A12
4920	E1
5403	B1
5404	B1
5522	D6
6201	C6
6202	C6
6641	E13
6642	E13
7201	C6
7501	D8
7661	H2
7662	H2
7663	I3
7693	C13
7694	G12
7695-A	G14
7695-B	H14
9522	D6
9618	B1
9654	B1

AF11 BOARD - CIRCUIT DIAGRAM (PART 2)


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
COAX
DIGITAL OUT
1801
YKC21-3416
3806
75R
P 4909
P 4910
P 4911
+5V_CD
3804
220R
5802
2u2
3808
22K
3802
22K
2810
47p
GND_D
2.3V
2803
1u
7802
74LVU04D
VCC
GND
3809
47R
3805
220R
2806
150p
5801
6RG
2804
100n
3801
470R
2801
100n
3807
2K2
3803
560R
2802
1n
4801
2809
100n
2808
100n
4921
2807
100n
2805
100n
GND_EMC
P 4906
EH-B
1524
FE-BT-VK-N
1522
GND_D
SHIELD
COAX2
COAX1
PORE / DSA_STB
SILD
CD_SH_DATA
SICL
CD_SH_CLK
CD_SH_STR
SW_INFO
+12V_M
GND_M
+5V_CD
CD_RIGHT
GND_A
CD_LEFT
FROM / TO 5DTC / 3CDC
9662
5662
CD_PORE
For VCD version only
4914
1525
FE-BT-VK-N
GND_M
+12V_M
6207
1N4003
6208
1N4003
2820
220u
CD_Right
A_CD
CD_Left
FE-BT-VK-N
1523
3412
1K
+5V
4.5V
NTC
GND_D
I2C_Data
I2C_Clk
+5V6_Con
+12V_M
P 4912
4913
+5V6
-Vkk
F1
F2
4903
P 5907
P 4907
9405
4908
P 4915
P 5915
DSA_STB
1401
1405
NTC
I2C_DATA
I2C_CLK
+5V6_CON
+11V_D
+5V6
-VKK
CD_SH_DATA
CD_SH_CLK
CD_SH_STR
SW_INFO
SICL
SILD
DSA_STB/GND_D
FE-BT-VK-N
1206
1203
1201
1205
AMP_LEFT
aa
AMP_RIGHT
Low_Pw_Ctrl
Pw_Dn
Clipping
AmOn
AMP_CS_DC
VCDorCDRon
DVD_ON
S96
FROM / TO Power Board
2955
1n
For CDR version only
+5V6
4905
+12V_M
For VCD version only
CD_PORE
4802
DSA_STB
-Vkk
3205
5K6
-10V
-CMOS
-32V
6205
BZX79-C10
2207
47u
1204
EH-B
1202
EH-B
LPS
9.3V
+12V_A
GND_A
+5V_VCD
3821
10R
9634
7202
MC78L05
IN
GND
OUT
9614
+5V6_Con
P 3820
10R
6206
1N4003
2209
47u
6209
BZX79-C6V8
2208
220n
2210
220n
P7404
BC817-25
2211
100n
3822
270R
1402
FE-BT-VK-N
TU_STEREO
TU_CLK
TU_DATA
TU_ENAB
+12V_A
TU_Right
TU_Left
FROM/TO TUNER
2954
47n
9486
2520
10n
A_TU
2950
470p
2951
100p
2952
470p
2953
470p
FE-BT-VK-N
1520
SA_L_IN
SA_R_IN
Pw_Dn
Low_Pw_Ctrl
8.5V
Tu_Gnd
POWER_DOWN
LOW_PWR_CTRL
FROM / TO FRONT DISPALY BOARD
1100
2901
100n
9483
MIC_DET
4904
9904
6204
BZX79-B3V3

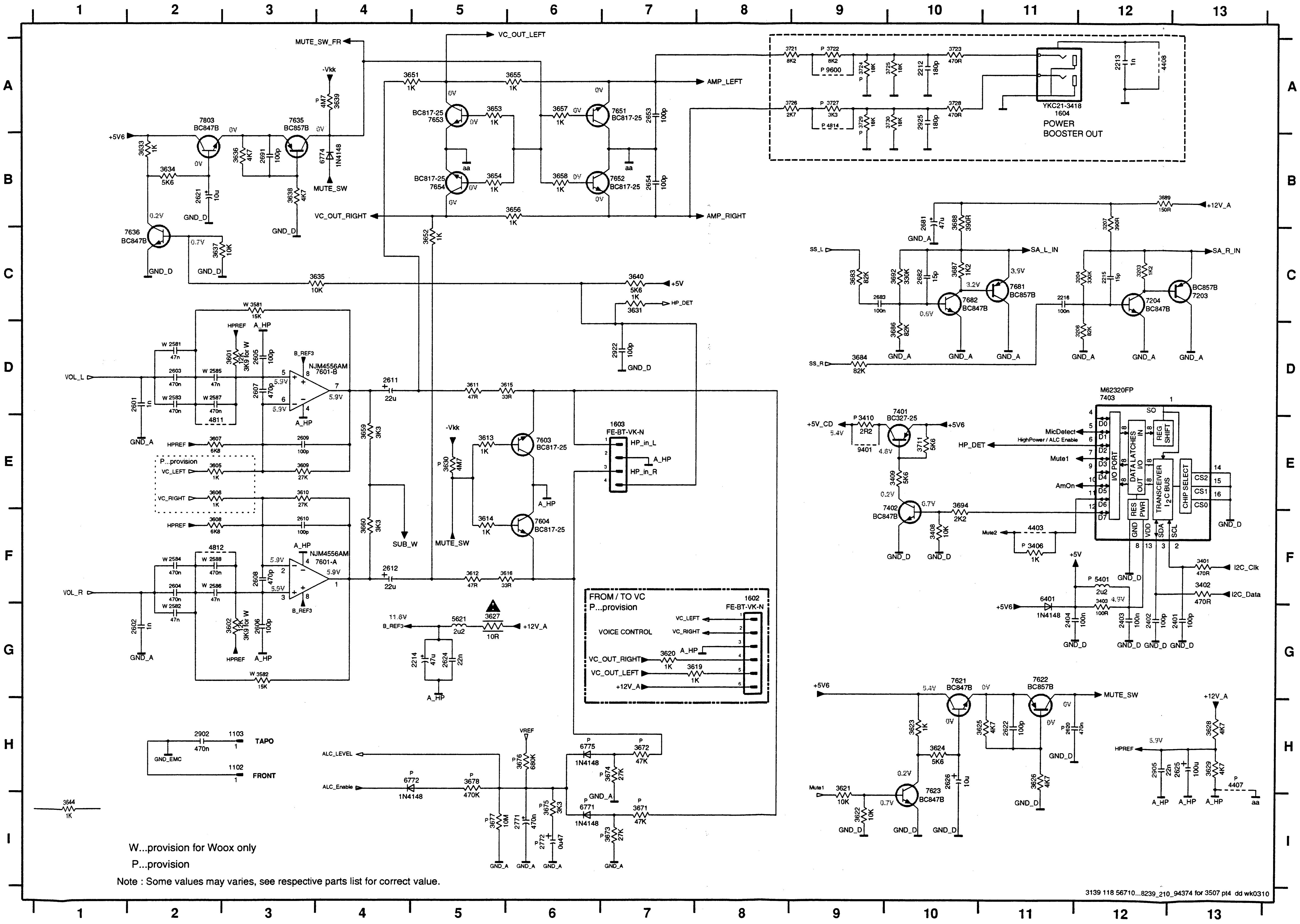
P...provision

Note : Some values may varies, see respective parts list for correct value.

3139 118 56710...8239_210_94374 for 3507 pt4 dd wk0310

1100	F6
1201	C1
1202	E1
1203	C1
1204	E1
1205	C1
1206	C1
1401	A9
1402	D9
1405	A9
1520	E6
1522	A6
1523	D6
1524	A5
1525	B5
1801	A1
2207	D3
2208	F2
2209	E3
2210	F2
2211	F3
2520	E7
2801	B4
2802	C3
2803	B3
2804	B3
2805	B2
2806	B2
2807	B1
2808	B4
2809	B4
2810	A4
2820	C5
2901	F6
2950	E7
2951	E7
2952	E7
2953	E7
2954	E6
2955	E1
3205	D2
3412	A8
3801	B4
3802	A4
3803	B3
3804	A3
3805	B2
3806	A1
3807	B4
3808	A3
3809	B2
3820	E3
3821	E2
3822	F3
4801	B4
4802	C4
4903	B8
4904	F7
4905	C3
4906	A5
4907	C8
4908	C8
4909	A3
4910	A3
4911	A4
4912	B8
4913	B8
4914	B5
4915	C8
4921	B1
5662	B5
5801	B2
5802	A3
5907	C8
5915	C8
6204	F7
6205	D3
6206	F2
6207	B5
6208	C5
6209	F3
7202	E3
7404	F3
7802	A3
9405	C8
9483	F6
9486	E7
9614	E3
9634	E2
9662	B5
9904	F7

AF11 BOARD - CIRCUIT DIAGRAM (PART 3)


MUTE_SW_FR
VC_OUT_LEFT
AMP_LEFT
VC_OUT_RIGHT
AMP_RIGHT
MUTE_SW
+5V6
-Vkk
7803 BC847B
7635 BC857B
7636 BC847B
BC817-25 7653
BC817-25 7654
7651 BC817-25
7652 BC817-25
6774 1N4148
GND_D
aa
YKC21-3418 1604
POWER BOOSTER OUT
+12V_A
SS_L
SS_R
SA_L_IN
SA_R_IN
7682 BC847B
7681 BC857B
7204 BC847B
BC857B 7203
GND_A
+5V
HP_DET
VOL_L
VOL_R
NJM4556AM 7601-B
NJM4556AM 7601-A
HPREF
A_HP
B_REF3
VC_LEFT
VC_RIGHT
P...provision
1603 FE-BT-VK-N
HP_in_L
HP_in_R
7603 BC817-25
7604 BC817-25
SUB_W
MUTE_SW
M62320FP 7403
MicDetect
HighPower / ALC Enable
Mute1
AmOn
Mute2
IO PORT
DATA LATCHES OUT I/O IN
REG SHIFT
TRANSCEIVER I2C BUS
CHIP SELECT
RES PWR
GND VDD SDA SCL
CS2 CS1 CS0
I2C_Clk
I2C_Data
+5V_CD
7401 BC327-25
7402 BC847B
6401 1N4148
FROM / TO VC
P...provision
1602 FE-BT-VK-N
VOICE CONTROL
VC_OUT_RIGHT
VC_OUT_LEFT
+12V_A
B_REF3
ALC_LEVEL
ALC_Enable
VREF
6775 1N4148
6772 1N4148
6771 1N4148
7621 BC847B
7622 BC857B
7623 BC847B
TAPO
FRONT
GND_EMC
1102
1103
2902 470n
3644 1K
1
2
3
4
5
6
7
8
9
10
11
12
13
A
B
C
D
E
F
G
H
I

W...provision for Woox only

P...provision

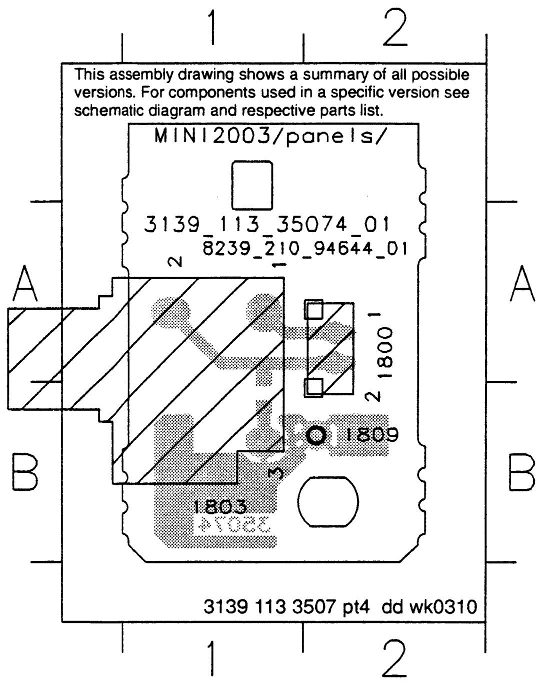
Note : Some values may varies, see respective parts list for correct value.

3139 118 56710...8239_210_94374 for 3507 pt4 dd wk0310

1102	H3
1103	H3
1602	F8
1603	E7
1604	A11
2212	A10
2213	A12
2214	G5
2215	C12
2216	C11
2401	G13
2402	G12
2403	G12
2404	G11
2581	D2
2582	G2
2583	D2
2584	F2
2585	D2
2586	F2
2587	D2
2588	F2
2601	D2
2602	G2
2603	D2
2604	F2
2605	D3
2606	G3
2607	D3
2608	F3
2609	E3
2610	F3
2611	D4
2612	F4
2620	H11
2621	B2
2622	H11
2624	G5
2625	H13
2626	H10
2653	A7
2654	B7
2681	B10
2682	C10
2683	C9
2691	B3
2771	I6
2772	I6
2902	H2
2905	H12
2922	D7
2925	A10
3203	C12
3204	C12
3206	D12
3207	B12
3401	F13
3402	F13
3403	F12
3406	F11
3408	F10
3409	E10
3410	E9
3581	C3
3582	G3
3601	D3
3602	G3
3605	E2
3606	E2
3607	E2
3608	F2
3609	E3
3610	E3
3611	D5
3612	F5
3613	E5
3614	F5
3615	D5
3616	F5
3619	G7
3620	G7
3621	H9
3622	I9
3623	H10
3624	H10
3625	H11
3626	H11
3627	G5
3628	H13
3629	H13
3630	E5
3631	C7
3633	B2
3634	B2
3635	C4
3636	B3
3637	C2
3638	B3
3639	A4
3640	C7
3644	I1
3651	A4
3652	C5
3653	A5
3654	B5
3655	A6
3656	B6
3657	A6
3658	B6
3659	E4
3660	F4
3671	I7
3672	H7
3673	I7
3674	H7
3675	I6
3676	H6
3677	I5
3678	H5
3683	C9
3684	D9
3686	D10
3687	C10
3688	B10
3689	B12
3692	C10
3694	E10
3711	E10
3721	A8
3722	A9
3723	A10
3724	A9
3725	A10
3726	A8
3727	A9
3728	A10
3729	A9
3730	A10
4403	F11
4407	H13
4408	A12
4811	E2
4812	F2
4814	A9
5401	F12
5621	G5
6401	F11
6771	I6
6772	H5
6774	B4
6775	H6
7203	C13
7204	C12
7401	D10
7402	F10
7403	D12
7601-A	F3
7601-B	D3
7603	E6
7604	F6
7621	G10
7622	G11
7623	I10
7635	A3
7636	C2
7651	A7
7652	B7
7653	A5
7654	B5
7681	C11
7682	C10
7803	A2
9401	E9
9600	A9

VIDEO OUT CINCH BOARD - COMPONENT LAYOUT

1800 A2
1803 B1
1809 B2

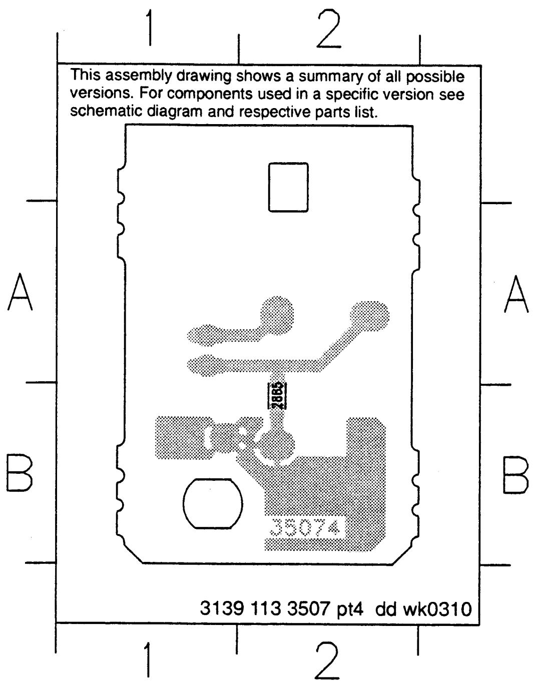


This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

3139 113 3507 pt4 dd wk0310

VIDEO OUT CINCH BOARD - CHIP LAYOUT

2885 B2

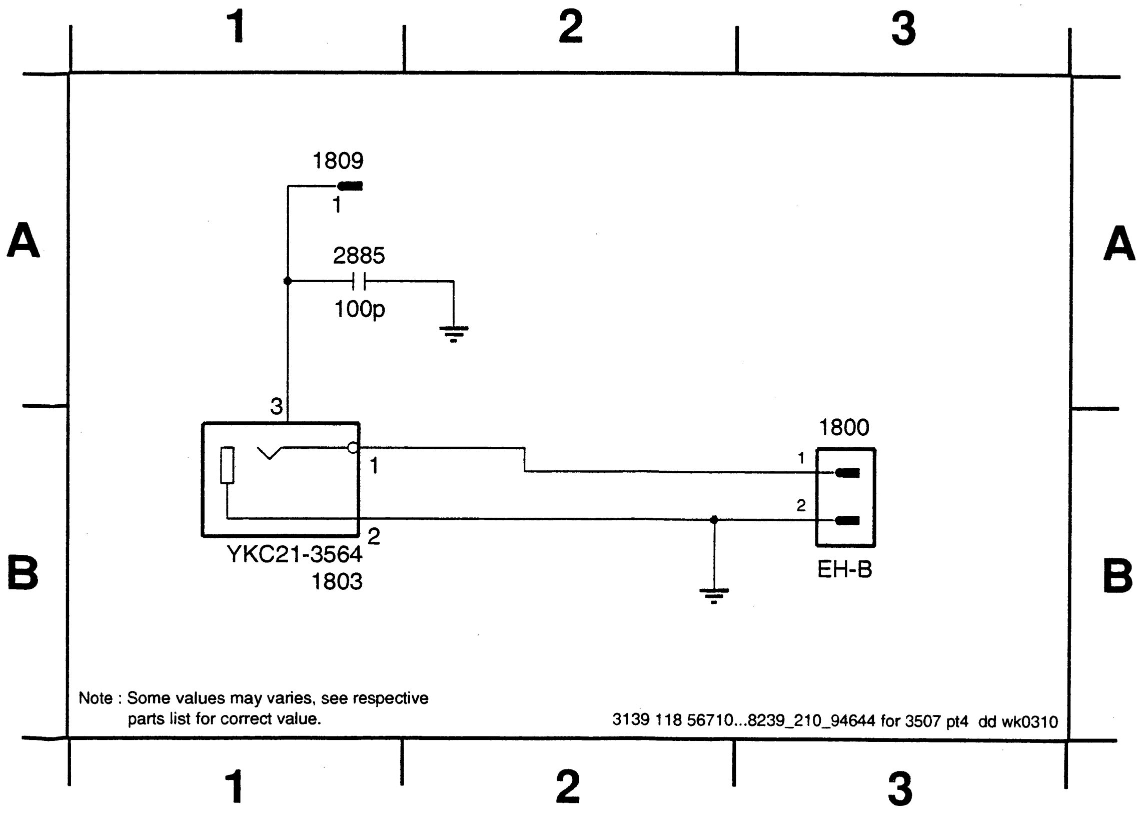


This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

3139 113 3507 pt4 dd wk0310

VIDEO OUT CINCH BOARD - CIRCUIT DIAGRAM

1800 B3 1803 B1 1809 A1 2885 A1



Note : Some values may varies, see respective parts list for correct value.

3139 118 56710...8239_210_94644 for 3507 pt4 dd wk0310

ELECTRICAL PARTS LIST - AF11 BOARD

MISCELLANEOUS

1206	4822 267 11039	Flex Connector 11P
1401	4822 265 11553	Flex Connector 19P
1402	2422 025 14518	Flex Connector 9P
1501	4822 265 20553	Cinch Socket - Aux in
1504	4822 265 20553	Cinch Socket - Line out
1520	4822 265 11515	Flex Connector 8P
1523	4822 265 10981	Flex Connector 15P
1531	4822 267 10953	Flex Connector 7P
1603	4822 267 10733	Flex Connector 4P
1692	4822 265 11515	Flex Connector 8P
1803	4822 267 31996	Cinch Socket - Video out

CAPACITORS

2201	4822 124 40207	100uF 20% 25V
2202	4822 124 81151	22uF 50V
2203	4822 124 40433	47uF 20% 25V
2204	4822 124 40196	220uF 20% 16V
2205	4822 126 14238	2,2nF 50V
2206	3198 017 42230	22nF 50V
2207	4822 124 40433	47uF 20% 25V
2209	4822 124 40433	47uF 20% 25V
2214	4822 124 40433	47uF 20% 25V
2215	4822 122 33752	15pF 5% 50V
2216	2238 586 59812	100nF +80/-20% 50V
2401	2020 552 94427	100pF 5% 50V
2402	2020 552 94427	100pF 5% 50V
2403	2238 586 59812	100nF +80/-20% 50V
2404	2238 586 59812	100nF +80/-20% 50V
2501	4822 126 13881	470pF 5% 50V
2502	4822 126 13881	470pF 5% 50V
2503	4822 124 40756	1uF 20% 100V
2504	4822 124 40756	1uF 20% 100V
2505	2020 552 94427	100pF 5% 50V
2506	2020 552 94427	100pF 5% 50V
2507	2238 586 59812	100nF +80/-20% 50V
2511	4822 124 40756	1uF 20% 100V
2512	4822 124 40756	1uF 20% 100V
2513	3198 016 31020	1nF 25V
2514	3198 016 31020	1nF 25V
2515	2020 552 94427	100pF 5% 50V
2516	2020 552 94427	100pF 5% 50V
2521	2238 586 59812	100nF +80/-20% 50V
2522	2238 586 59812	100nF +80/-20% 50V
2523	2020 552 94427	100pF 5% 50V
2524	2020 552 94427	100pF 5% 50V
2531	4822 124 40769	4,7uF 20% 100V
2532	4822 124 40769	4,7uF 20% 100V
2533	2020 552 94427	100pF 5% 50V
2534	2020 552 94427	100pF 5% 50V
2535	4822 124 40769	4,7uF 20% 100V
2536	4822 124 40769	4,7uF 20% 100V
2541	4822 124 41407	0,47uF 20% 63V
2542	4822 124 41407	0,47uF 20% 63V
2543	4822 126 14549	33nF 16V
2544	4822 126 14549	33nF 16V
2546	4822 121 10686	4,7nF 10% 50V
2547	5322 126 11579	3,3nF 10% 63V
2548	5322 126 11579	3,3nF 10% 63V
2565	4822 121 10686	4,7nF 10% 50V
2567	3198 016 31020	1nF 25V
2568	3198 016 31020	1nF 25V
2589	4822 121 42408	220nF 5% 63V
2590	4822 121 42408	220nF 5% 63V
2591	4822 121 51252	470nF 5% 63V
2592	4822 121 51252	470nF 5% 63V
2593	4822 121 51252	470nF 5% 63V
2594	4822 121 51252	470nF 5% 63V
2601	3198 016 31020	1nF 25V
2602	3198 016 31020	1nF 25V
2603	4822 121 51252	470nF 5% 63V
2604	4822 121 51252	470nF 5% 63V
2605	2020 552 94427	100pF 5% 50V
2606	2020 552 94427	100pF 5% 50V
2607	4822 126 13881	470pF 5% 50V
2608	4822 126 13881	470pF 5% 50V
2609	2020 552 94427	100pF 5% 50V
2610	2020 552 94427	100pF 5% 50V
2611	4822 124 40764	22uF 100 V
2612	4822 124 40764	22uF 100 V
2621	4822 124 40248	10uF 20% 63V
2622	2020 552 94427	100pF 5% 50V
2624	2238 916 15641	22nF 10% 25V
2625	4822 124 41584	100uF 20% 10V
2626	4822 124 40248	10uF 20% 63V
2641	3198 016 31020	1nF 25V
2642	3198 016 31020	1nF 25V
2653	2020 552 94427	100pF 5% 50V
2654	2020 552 94427	100pF 5% 50V
2661	4822 124 40756	1uF 20% 100V
2662	4822 124 40756	1uF 20% 100V
2663	3198 016 31020	1nF 25V
2664	3198 016 31020	1nF 25V
2665	4822 126 13881	470pF 5% 50V
2666	4822 126 13881	470pF 5% 50V
2667	2238 586 59812	100nF +80/-20% 50V
2669	2238 586 59812	100nF +80/-20% 50V
2681	4822 124 40433	47uF 20% 25V
2682	4822 122 33752	15pF 5% 50V
2683	2238 586 59812	100nF +80/-20% 50V
2691	2020 552 94427	100pF 5% 50V
2707	2020 552 94427	100pF 5% 50V
2708	2020 552 94427	100pF 5% 50V
2771	4822 124 41407	0,47uF 20% 63V
2820	4822 124 40196	220uF 20% 16V

ELECTRICAL PARTS LIST - AF11 BOARD

CAPACITORS

2885	5322 122 32531	100pF 5% 50V
2901	2020 561 90365	100nF +80/-20% 50V
2904	2238 586 59812	100nF +80/-20% 50V
2905	2238 916 15641	22nF 10% 25V
2908	2238 586 59812	100nF +80/-20% 50V
2922	2020 552 94427	100pF 5% 50V
2927	4822 126 14043	1uF +80/-20% 16V
2928	4822 126 14043	1uF +80/-20% 16V
2929	4822 126 14043	1uF +80/-20% 16V
2930	4822 126 14043	1uF +80/-20% 16V
2933	4822 122 33753	150pF 5% 50V
2934	4822 122 33753	150pF 5% 50V
2935	2020 012 93583	100uF 20% 25V
2936	4822 126 13956	68pF 5% 63V
2937	4822 126 13956	68pF 5% 63V
2938	2020 552 94427	100pF 5% 50V
2939	2020 552 94427	100pF 5% 50V
2950	4822 126 13881	470pF 5% 50V
2951	4822 126 13881	470pF 5% 50V
2952	2020 552 94427	100pF 5% 50V
2953	4822 126 13881	470pF 5% 50V
2954	3198 017 34730	47nF 16V
2955	3198 016 31020	1nF 25V

RESISTORS

3201	4822 117 12968	820R 5% 0,62W
3202	4822 051 30391	390R 5% 0,062W
3203	4822 117 11817	1k2 1% 1/16W
3204	4822 051 30334	330k 5% 0,062W
3205	4822 116 52289	5k6 5% 0,5W
3206	4822 117 12864	82k 5% 0,6W
3207	4822 051 30391	390R 5% 0,062W
3208	4822 051 30472	4k7 5% 0,062W
3401	4822 051 30471	470R 5% 0,062W
3402	4822 051 30471	470R 5% 0,062W
3403	4822 116 52175	100R 5% 0,5W
3408	4822 051 30103	10k 5% 0,062W
3409	4822 051 30562	5k6 5% 0,063W
3412	4822 050 11002	1k 1% 0,4W
3435	4822 116 83883	470R 5% 0,5W
3436	4822 116 83883	470R 5% 0,5W
3501	4822 051 30472	4k7 5% 0,062W
3502	4822 051 30472	4k7 5% 0,062W
3503	4822 051 30123	12k 5% 0,062W
3504	4822 051 30123	12k 5% 0,062W
3505	4822 051 30332	3k3 5% 0,062W
3506	4822 051 30332	3k3 5% 0,062W
3511	4822 051 30681	680R 5% 0,062W
3512	4822 051 30681	680R 5% 0,062W
3513	4822 117 12902	8k2 1% 0,063W
3514	4822 117 12902	8k2 1% 0,063W
3521	4822 051 30102	1k 5% 0,062W
3522	4822 051 30102	1k 5% 0,062W
3525	4822 051 30471	470R 5% 0,062W
3526	4822 051 30471	470R 5% 0,062W
3531	4822 051 30152	1k5 5% 0,062W
3532	4822 051 30152	1k5 5% 0,062W
3533	4822 051 30273	27k 5% 0,062W
3534	4822 051 30273	27k 5% 0,062W
3543	4822 051 30153	15k 5% 0,062W
3544	4822 051 30153	15k 5% 0,062W
3545	4822 051 30562	5k6 5% 0,063W
3546	4822 051 30562	5k6 5% 0,063W
3547	4822 051 30332	3k3 5% 0,062W
3548	4822 051 30332	3k3 5% 0,062W
3549	4822 051 30562	5k6 5% 0,063W
3550	4822 051 30562	5k6 5% 0,063W
3591	4822 117 12902	8k2 1% 0,063W
3592	4822 117 12902	8k2 1% 0,063W
3593	4822 051 30562	5k6 5% 0,063W
3594	4822 051 30562	5k6 5% 0,063W
3601	4822 116 52238	12k 5% 0,5W
3602	4822 116 52238	12k 5% 0,5W
3607	4822 051 30682	6k8 5% 0,062W
3608	4822 116 83961	6k8 5%
3609	4822 051 30273	27k 5% 0,062W
3610	4822 051 30273	27k 5% 0,062W
3611	4822 051 30479	47R 5% 0,062W
3612	4822 051 30479	47R 5% 0,062W
3613	4822 051 30102	1k 5% 0,062W
3614	4822 051 30102	1k 5% 0,062W
3615	4822 051 30339	33R 5% 0,062W
3616	4822 051 30339	33R 5% 0,062W
3621	4822 051 30103	10k 5% 0,062W
3622	4822 051 30103	10k 5% 0,062W
3623	4822 051 30102	1k 5% 0,062W
3624	4822 051 30562	5k6 5% 0,063W
3625	4822 051 30472	4k7 5% 0,062W
3626	4822 051 30472	4k7 5% 0,062W
3627	4822 052 10109 △	10R 5% 0,33W
3628	4822 116 52283	4k7 5% 0,5W
3629	4822 051 30472	4k7 5% 0,062W
3631	4822 050 11002	1k 1% 0,4W
3633	4822 051 30102	1k 5% 0,062W
3634	4822 051 30562	5k6 5% 0,063W
3635	4822 051 30103	10k 5% 0,062W
3636	4822 051 30472	4k7 5% 0,062W
3637	4822 051 30103	10k 5% 0,062W
3638	4822 051 30472	4k7 5% 0,062W
3640	4822 116 52289	5k6 5% 0,5W
3645	4822 051 30221	220R 5% 0,062W
3646	4822 051 30221	220R 5% 0,062W
3651	4822 051 30102	1k 5% 0,062W
3652	4822 051 30102	1k 5% 0,062W

ELECTRICAL PARTS LIST - AF11 BOARD

3653	4822 051 30102	1k 5% 0,062W
3654	4822 051 30102	1k 5% 0,062W
3655	4822 051 30102	1k 5% 0,062W
3656	4822 051 30102	1k 5% 0,062W
3657	4822 051 30102	1k 5% 0,062W
3658	4822 051 30102	1k 5% 0,062W
3661	4822 051 30272	2k7 5% 0,062W
3662	4822 051 30272	2k7 5% 0,062W
3663	4822 116 52256	2k2 5% 0,5W
3664	4822 051 30222	2k2 5% 0,062W
3665	4822 051 30471	470R 5% 0,062W
3666	4822 051 30471	470R 5% 0,062W
3668	4822 051 30472	4k7 5% 0,062W
3669	4822 051 30103	10k 5% 0,062W
3683	4822 117 12864	82k 5% 0,6W
3684	4822 117 12864	82k 5% 0,6W
3686	4822 117 12864	82k 5% 0,6W
3687	4822 117 11817	1k2 1% 1/16W
3688	4822 051 30391	390R 5% 0,062W
3689	4822 051 30151	150R 5% 0,062W
3692	4822 051 30334	330k 5% 0,062W
3694	4822 051 30222	2k2 5% 0,062W
3707	4822 050 11002	1k 1% 0,4W
3708	4822 050 11002	1k 1% 0,4W
3711	4822 051 30562	5k6 5% 0,063W
3821	4822 052 10109 △	10R 5% 0,33W
3932	4822 051 30103	10k 5% 0,062W
3933	4822 051 30562	5k6 5% 0,063W
3934	4822 116 83882	39k 5% 0,5W
3935	4822 051 30123	12k 5% 0,062W
3936	4822 051 30562	5k6 5% 0,063W
3937	4822 051 30103	10k 5% 0,062W
3938	4822 051 30103	10k 5% 0,062W
3939	4822 051 30689	68R 5% 0,063W
3940	4822 051 30123	12k 5% 0,062W
3941	4822 051 30103	10k 5% 0,062W
3942	4822 051 30393	39k 5% 0,062W
3943	4822 051 30689	68R 5% 0,063W
3944	4822 051 30152	1k5 5% 0,062W
3945	4822 051 30153	15k 5% 0,062W
3946	4822 051 30223	22k 5% 0,062W
3947	4822 051 30152	1k5 5% 0,062W
3948	4822 051 30153	15k 5% 0,062W
3949	4822 051 30223	22k 5% 0,062W
3950	4822 051 30392	3k9 5% 0,063W
3951	4822 117 12968	820R 5% 0,62W
3952	4822 117 12968	820R 5% 0,62W
4100	4822 051 30008	0R Jumper 0603
4101	4822 051 30008	0R Jumper 0603
4102	4822 051 30008	0R Jumper 0603
4104	4822 051 30008	0R Jumper 0603
4116	4822 051 30008	0R Jumper 0603
4122	4822 051 30008	0R Jumper 0603
4130	4822 051 30008	0R Jumper 0603
4132	4822 051 30008	0R Jumper 0603
4133	4822 051 30008	0R Jumper 0603
4135	4822 051 30008	0R Jumper 0603
4137	4822 051 30008	0R Jumper 0603
4138	4822 051 30008	0R Jumper 0603
4139	4822 051 30008	0R Jumper 0603
4141	4822 051 30008	0R Jumper 0603
4142	4822 051 30008	0R Jumper 0603
4144	4822 051 30008	0R Jumper 0603
4145	4822 051 30008	0R Jumper 0603
4146	4822 051 30008	0R Jumper 0603
4148	4822 051 30008	0R Jumper 0603
4149	4822 051 30008	0R Jumper 0603
4150	4822 051 30008	0R Jumper 0603
4151	4822 051 30008	0R Jumper 0603
4152	4822 051 30008	0R Jumper 0603
4153	4822 051 30008	0R Jumper 0603
4201	4822 051 30008	0R Jumper 0603
4202	4822 051 30008	0R Jumper 0603
4203	4822 051 30008	0R Jumper 0603
4204	4822 051 30008	0R Jumper 0603
4206	4822 051 30008	0R Jumper 0603
4207	4822 051 30008	0R Jumper 0603
4208	4822 051 30008	0R Jumper 0603
4209	4822 051 30008	0R Jumper 0603
4210	4822 051 30008	0R Jumper 0603
4211	4822 051 30008	0R Jumper 0603
4212	4822 051 30008	0R Jumper 0603
4301	4822 051 30008	0R Jumper 0603
4305	4822 051 30008	0R Jumper 0603
4306	4822 051 30008	0R Jumper 0603
4313	4822 051 30008	0R Jumper 0603
4319	4822 051 30008	0R Jumper 0603
4331	4822 051 30008	0R Jumper 0603
4332	4822 051 30008	0R Jumper 0603
4333	4822 051 30008	0R Jumper 0603
4334	4822 051 30008	0R Jumper 0603
4336	4822 051 30008	0R Jumper 0603
4337	4822 051 30008	0R Jumper 0603
4338	4822 051 30008	0R Jumper 0603
4342	4822 051 30008	0R Jumper 0603
4349	4822 051 30008	0R Jumper 0603
4374	4822 051 30008	0R Jumper 0603
4403	4822 051 30008	0R Jumper 0603
4407	4822 051 30008	0R Jumper 0603
4409	4822 051 30008	0R Jumper 0603
4410	4822 051 30008	0R Jumper 0603
4411	4822 051 30008	0R Jumper 0603
4501	4822 051 30008	0R Jumper 0603
4641	4822 051 30008	0R Jumper 0603

ELECTRICAL PARTS LIST - AF11 BOARD

RESISTORS

3642	4822 051 30008	0R Jumper 0603
3802	4822 051 30008	0R Jumper 0603
3811	4822 051 30008	0R Jumper 0603
3812	4822 051 30008	0R Jumper 0603
3903	4822 051 30008	0R Jumper 0603
3904	4822 051 30008	0R Jumper 0603
3908	4822 051 30008	0R Jumper 0603
3913	4822 051 30008	0R Jumper 0603
3916	4822 051 30008	0R Jumper 0603
3917	4822 051 30008	0R Jumper 0603
3920	4822 051 30008	0R Jumper 0603

COILS & FILTERS

5522	4822 526 10704	FXD IND BEAD 100MHz 50R
5621	4822 156 21721	Coil 2,2uH 10%

DIODES

6201	4822 130 30621	1N4148
6202	4822 130 30862	BZX79-C9V1
6205	4822 130 61219	BZX79-C10
6206	4822 130 31878	1N4003G
6207	4822 130 31878	1N4003G
6208	4822 130 31878	1N4003G
6401	4822 130 30621	1N4148
6774	4822 130 30621	1N4148

TRANSISTORS & INTEGRATED CIRCUITS

7201	5322 130 60159	BC847B
7202	4822 209 72042	MC78L05ACP
7203	4822 130 60373	BC857B
7204	5322 130 60159	BC847B
7401	4822 130 41246	BC327-25
7402	5322 130 60159	BC847B
7403	4822 209 17345	M62320FP
7501	9322 150 74668	TDA7468D
7601	4822 209 31378	NJM4556AM
7603	4822 130 42804	BC817-25
7604	4822 130 42804	BC817-25
7621	5322 130 60159	BC847B
7622	4822 130 60373	BC857B
7623	5322 130 60159	BC847B
7635	4822 130 60373	BC857B
7636	5322 130 60159	BC847B
7651	4822 130 42804	BC817-25
7652	4822 130 42804	BC817-25
7653	4822 130 42804	BC817-25
7654	4822 130 42804	BC817-25
7661	5322 130 60159	BC847B
7662	5322 130 60159	BC847B
7663	4822 130 60373	BC857B
7681	4822 130 60373	BC857B
7682	5322 130 60159	BC847B
7694	5322 209 11102	HEF4052BT
7695	4822 209 83357	NJM4560M
7803	5322 130 60159	BC847B

Note : Only the parts mentioned in this list are normal service spare parts.

P2003 135/165W MODULE

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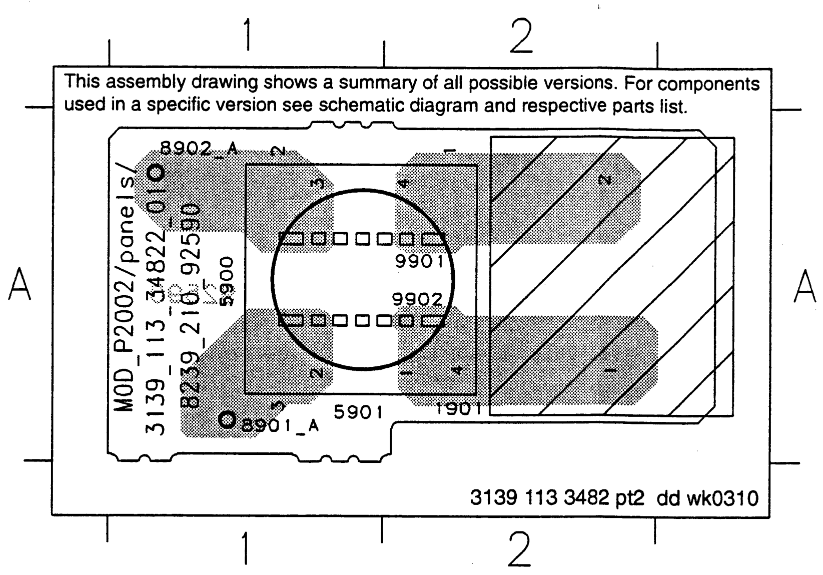
MAINS SOCKET BOARD - COMPONENT LAYOUT

1901 A2	5901 A1	8902_A A1	9902 A2
5900 A1	8901_A A1	9901 A2	

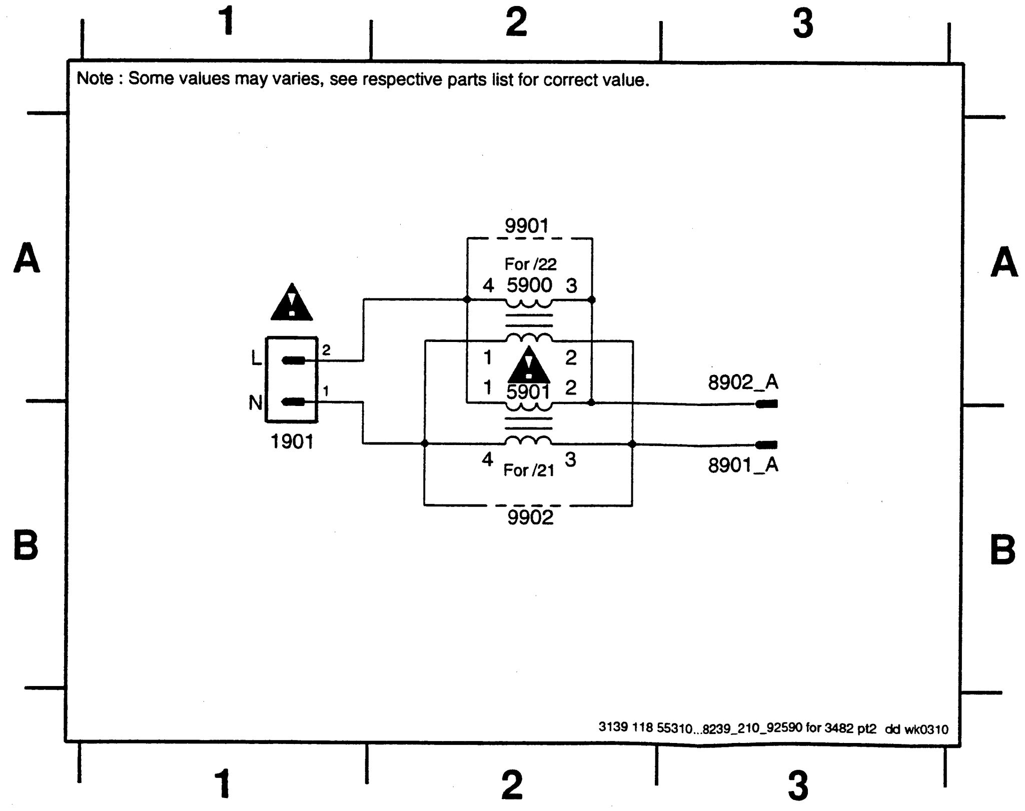


This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

1
2
A
A
8902_A
8901_A
MOD_P2002/panels/
3139_113_34822_01
8239_210_92590
5900
5901
9901
9902
1901
1
2
3
4
3139 113 3482 pt2 dd wk0310

MAINS SOCKET BOARD - CIRCUIT DIAGRAM

1901 B1	**5901 A2**	**8902_A A3**	**9902 B2**
5900 A2	**8901_A B3**	**9901 A2**	

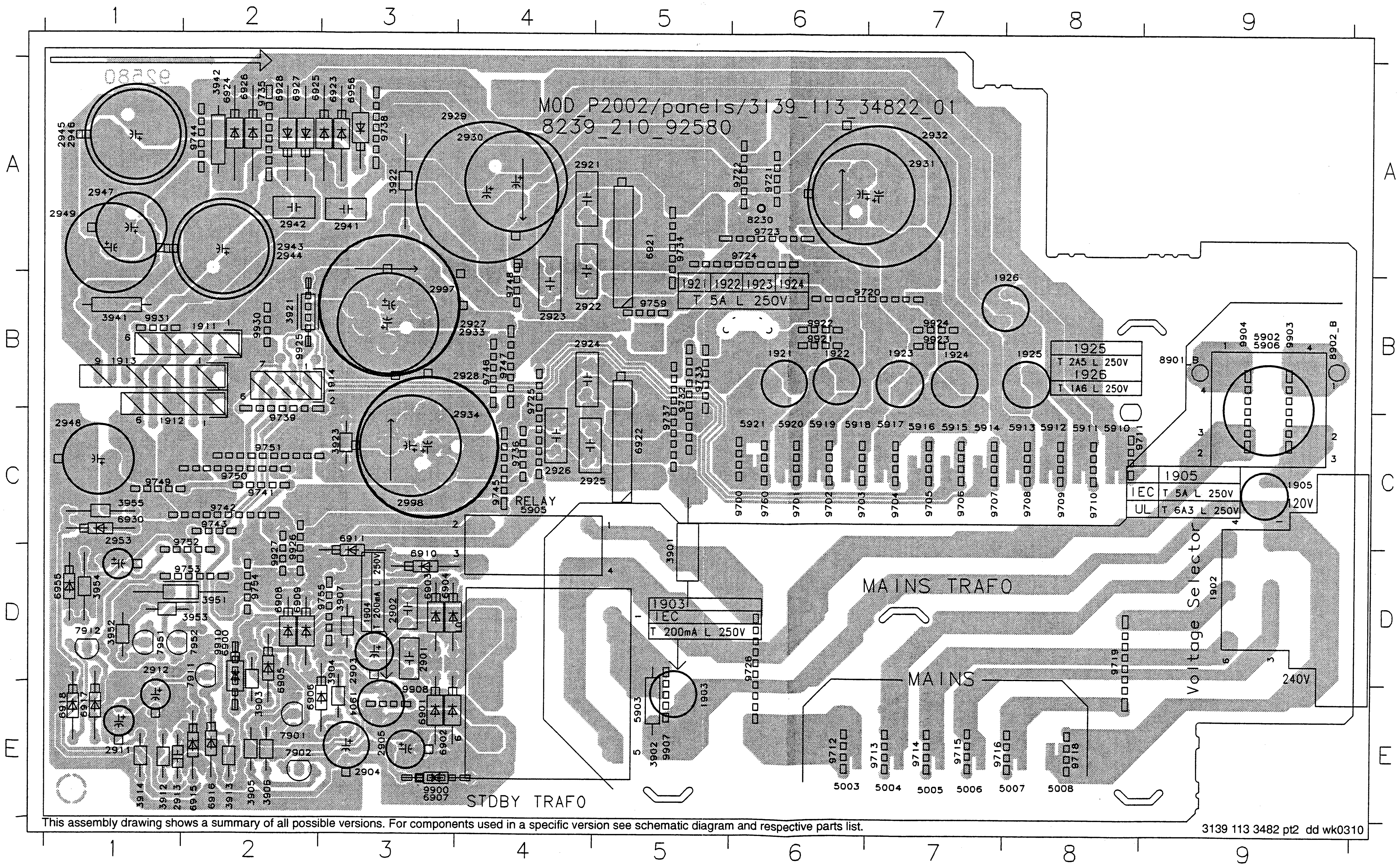


Note : Some values may varies, see respective parts list for correct value.

1
2
3
A
B
9901
For /22
4 5900 3
L
N
2
1
1901
1 2
1 5901 2
8902_A
4 For /21 3
8901_A
9902
3139 118 55310...8239_210_92590 for 3482 pt2 dd wk0310

MAINS BOARD - COMPONENT LAYOUT

1902	D9
1903	E5
1904	E3
1905	C9
1911	B2
1912	C1
1913	B1
1914	B3
1921	B6
1922	B6
1923	B7
1924	B7
1925	B8
1926	B8
2901	D3
2902	D3
2903	D3
2904	E3
2905	E3
2911	E1
2912	D1
2913	E1
2921	A4
2922	B4
2923	B4
2924	B4
2925	C4
2926	C4
2927	B4
2928	B4
2929	A3
2930	A4
2931	A7
2932	A7
2933	B4
2934	C4
2941	A3
2942	A2
2943	A2
2944	A2
2945	A1
2946	A1
2947	A1
2948	C1
2949	A1
2953	C1
2997	B3
2998	C3
3901	D5
3902	E5
3903	E2
3904	D3
3905	E2
3906	E2
3907	D3
3912	E1
3913	E2
3914	E1
3921	B2
3922	A3
3923	C3
3941	B1
3942	A2
3951	D2
3952	D1
3953	D2
3954	D1
3955	C1
5003	E6
5004	E7
5005	E7
5006	E7
5007	E8
5008	E8
5902	B9
5903	E5
5905	C4
5906	B9
5910	C8
5911	C8
5912	C8
5913	C8
5914	C7
5915	C7
5916	C7
5917	C7
5918	C6
5919	C6
5920	C6
5921	C6
6900	D2
6901	E3
6902	E3
6903	D3
6904	D3
6905	D2
6906	E2
6907	E3
6908	D2
6909	D2
6910	D3
6911	C3
6915	E2
6916	E2
6917	E1
6918	E1
6921	A5
6922	C5
6923	A3
6924	A2
6925	A2
6926	A2
6927	A2
6928	A2
6930	C1
6955	D1
6956	A3
7901	E2
7902	E2
7911	D2
7912	D1
7951	D1
7952	D2
8230	A6
8901_B	B9
8902_B	B9
9700	C6
9701	C6
9702	C6
9703	C6
9704	C7
9705	C7
9706	C7
9707	C7
9708	C8
9709	C8
9710	C8
9711	C8
9712	E6
9713	E7
9714	E7
9715	E7
9716	E7
9718	E8
9719	D8
9720	B6
9721	A6
9722	A6
9723	A6
9724	A6
9725	B4
9726	D6
9732	B5
9733	B5
9734	A5
9735	A2
9736	C4
9737	C5
9738	A3
9739	C2
9741	C2
9742	C2
9743	C2
9744	A2
9745	C4
9746	B4
9747	B4
9748	B4
9749	C1
9750	C2
9751	C2
9752	C2
9753	D2
9754	D2
9755	D3
9759	B5
9760	C6
9900	E3
9903	B9
9904	B9
9907	E5
9908	E3
9910	D2
9921	B6
9922	B6
9923	B7
9924	B7
9925	B2
9926	D2
9927	D2
9930	B2
9931	B1

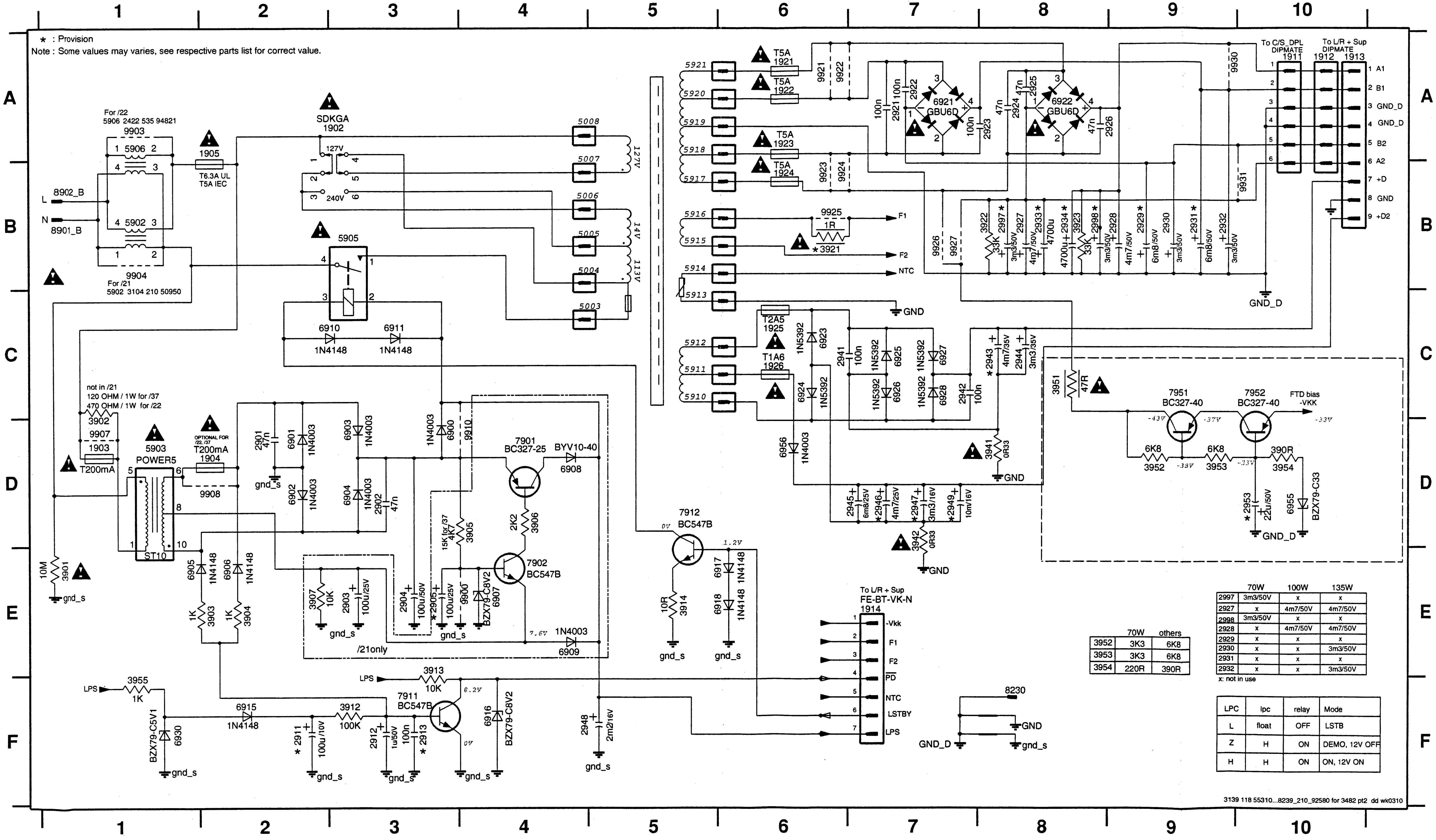

1
2
3
4
5
6
7
8
9
A
B
C
D
E
MOD_P2002/panels/3139_113_34822_01
8239_210_92580
1921 1922 1923 1924
T 5A L 250V
1925
T 2A5 L 250V
1926
T 1A6 L 250V
1905
IEC T 5A L 250V
UL T 6A3 L 250V
120V
240V
Voltage Selector
MAINS TRAFO
MAINS
RELAY
5905
1903
IEC
T 200mA L 250V
1904
T 200mA L 250V
STDBY TRAFO

This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

3139 113 3482 pt2 dd wk0310

MAINS BOARD - CIRCUIT DIAGRAM

1902	A3
1903	D1
1904	D2
1905	A2
1911	A10
1912	A10
1913	A10
1914	E7
1921	A6
1922	A6
1923	A6
1924	B6
1925	C6
1926	C6
2901	D2
2902	D3
2903	E3
2904	E3
2905	E3
2911	F2
2912	F3
2913	F3
2921	A7
2922	A7
2923	A8
2924	A8
2925	A8
2926	A8
2927	B8
2928	B9
2929	B9
2930	B9
2931	B9
2932	B9
2933	B8
2934	B8
2941	C6
2942	C7
2943	C8
2944	C8
2945	D7
2946	D7
2947	D7
2948	F4
2949	D7
2953	D10
2997	B8
2998	B8
3901	E1
3902	C1
3903	E2
3904	E2
3905	D4
3906	D4
3907	E2
3912	F3
3913	E3
3914	E5
3921	B6
3922	B7
3923	B8
3941	D8
3942	D7
3951	C8
3952	D9
3953	D9
3954	D10
3955	F1
5902	B1
5903	D1
5905	B3
5906	A1
6900	D3
6901	D2
6902	D2
6903	D3
6904	D3
6905	E1
6906	E2
6907	E4
6908	D4
6909	E4
6910	C3
6911	C3
6915	F2
6916	F4
6917	E6
6918	E6
6921	A7
6922	A8
6923	C6
6924	C6
6925	C7
6926	C7
6927	C7
6928	C7
6930	F1
6955	D10
6956	D6
7901	D4
7902	E4
7911	F3
7912	D5
7951	C9
7952	C10
8230	F8
8901_B	B1
8902_B	B1
9900	E4
9903	A1
9904	B1
9907	D1
9908	D2
9910	D4
9921	A6
9922	A6
9923	B6
9924	B6
9925	B6
9926	B7
9927	B7
9930	A9
9931	B10


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
For /22
5906 2422 535 94821
9903
5906
8902_B
L
N
8901_B
5902
9904
For /21
5902 3104 210 50950
1905
T6.3A UL
T5A IEC
SDKGA
1902
127V
240V
5905
6910
1N4148
6911
1N4148
5008
5007
5006
5005
5004
5003
12V
14V
113V
not in /21
120 OHM / 1W for /37
470 OHM / 1W for /22
3902
9907
1903
T200mA
5903
POWER5
ST10
OPTIONAL FOR /22 /37
T200mA
1904
9908
2901
47n
6901
1N4003
6903
1N4003
6902
1N4003
6904
1N4003
2902
47n
gnd_s
6900
1N4003
9910
7901
BC327-25
BYV10-40
6908
2K2
3906
15K for /37
4K7
3905
7902
BC547B
3907
10K
2903
100u/25V
2904
100u/50V
2905
100u/25V
9900
BZX79-C8V2
6907
7.6V
1N4003
6909
/21only
10M
3901
6905
1N4148
6906
1N4148
1K
3903
1K
3904
LPS
3955
1K
BZX79-C5V1
6930
6915
1N4148
3912
100K
2911
100u/10V
2912
1u/50V
2913
100n
7911
BC547B
3913
10K
6.2V
0V
6916
BZX79-C8V2
2948
2m2/16V
7912
BC547B
0V
1.2V
6917
1N4148
6918
1N4148
10R
3914
5921
5920
5919
5918
5917
5916
5915
5914
5913
5912
5911
5910
T5A
1921
T5A
1922
T5A
1923
T5A
1924
9921
9922
9923
9924
9925
1R
3921
F1
F2
NTC
GND
T2A5
1925
T1A6
1926
1N5392
6923
6924
1N5392
2941
100n
1N5392
6925
1N5392
6926
1N5392
6927
1N5392
6928
2942
100n
2943
4m7/35V
2944
3m3/35V
3941
0R33
6956
1N4003
2945
6m8/25V
2946
4m7/25V
2947
3m3/16V
2949
10m/16V
3942
0R33
2921
100n
2922
100n
6921
GBU6D
2923
100n
2924
47n
2925
47n
6922
GBU6D
2926
47n
9926
9927
3922
33K
2997
3m3/50V
2927
4m7/50V
2933
4700u
2934
4700u
3923
33K
2998
3m3/50V
2928
4m7/50V
2929
6m8/50V
2930
3m3/50V
2931
6m8/50V
2932
3m3/50V
9930
9931
GND_D
To C/S_DPL
DIPMATE
1911
To L/R + Sup
DIPMATE
1912
1913
A1
B1
GND_D
GND_D
B2
A2
+D
GND
+D2
3951
47R
7951
BC327-40
7952
BC327-40
FTD bias
-VKK
-43V
-37V
-33V
6K8
3952
6K8
3953
390R
3954
2953
22u/50V
6955
BZX79-C33
To L/R + Sup
FE-BT-VK-N
1914
-Vkk
PD
NTC
LSTBY
LPS
8230
gnd_s

★ : Provision

Note : Some values may varies, see respective parts list for correct value.

	70W	others
3952	3K3	6K8
3953	3K3	6K8
3954	220R	390R

	70W	100W	135W
2997	3m3/50V	x	x
2927	x	4m7/50V	4m7/50V
2998	3m3/50V	x	x
2928	x	4m7/50V	4m7/50V
2929	x	x	x
2930	x	x	3m3/50V
2931	x	x	x
2932	x	x	3m3/50V

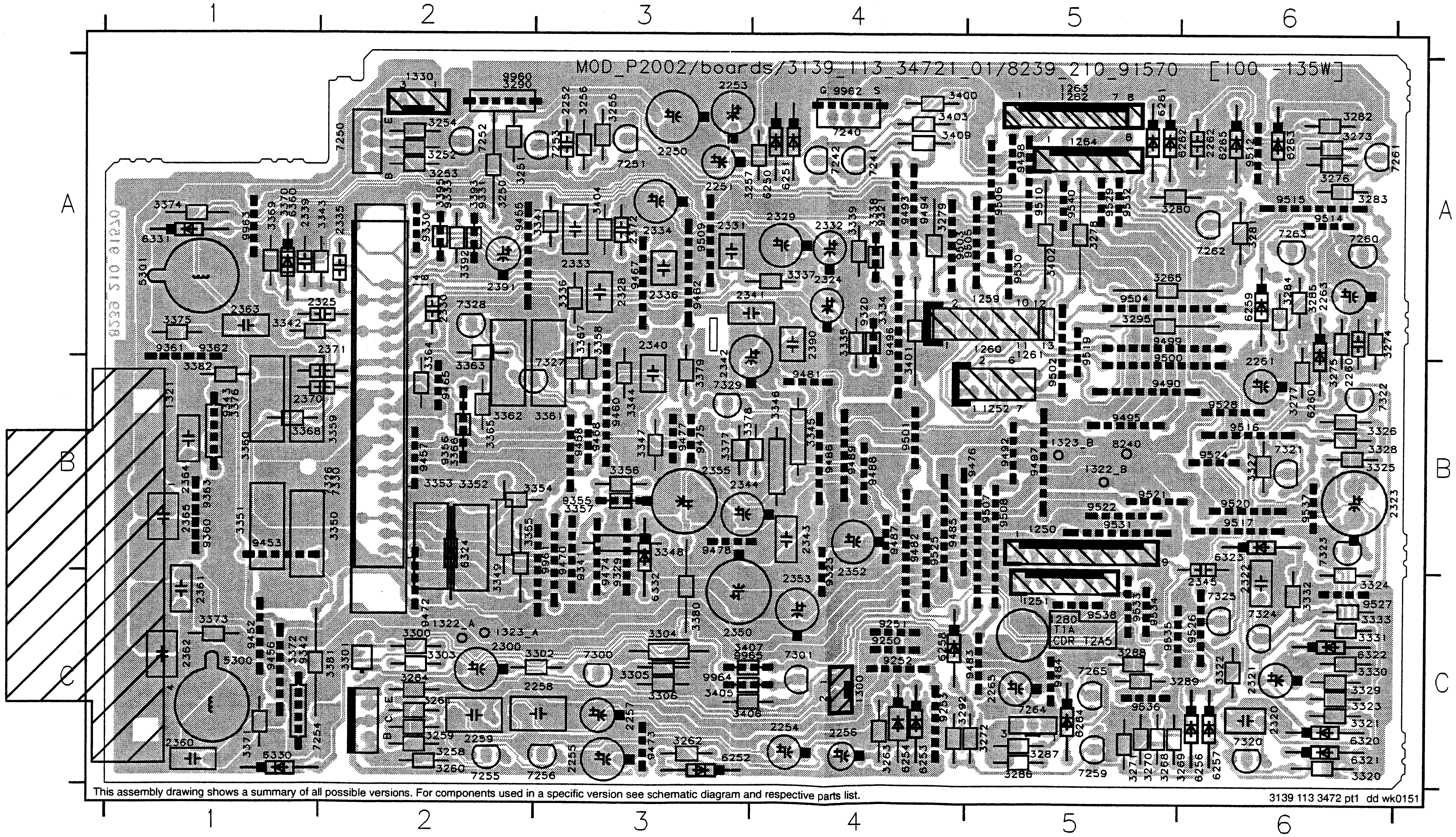
x: not in use

LPC	lpc	relay	Mode
L	float	OFF	LSTB
Z	H	ON	DEMO, 12V OFF
H	H	ON	ON, 12V ON

3139 118 55310...8239_210_92580 for 3482 pt2 dd wk0310

LEFT/RIGHT AMPLIFIER & SUPPLY BOARD - COMPONENT VIEW

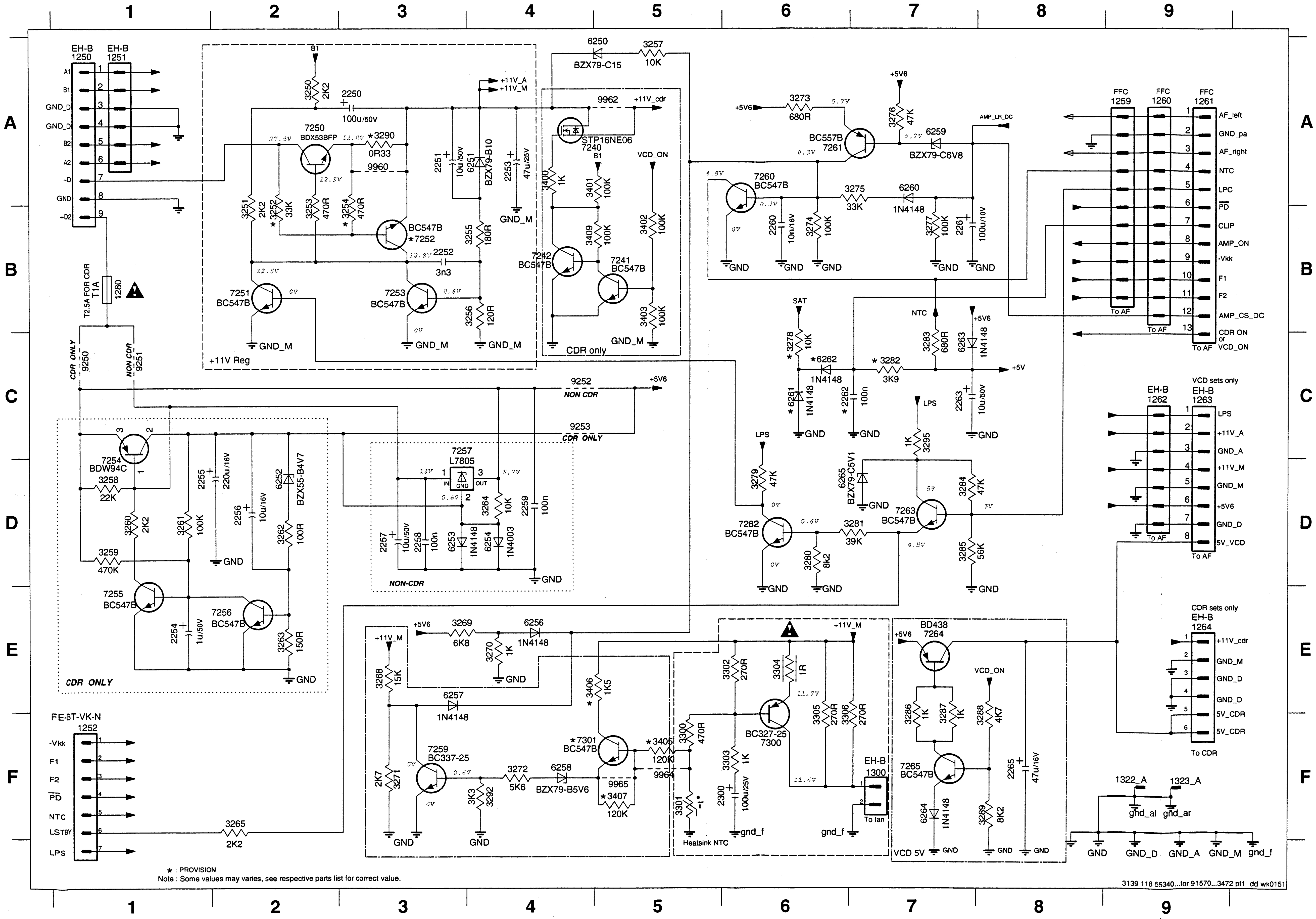
1250	B5	2260	B6	2345	C6	3261	C2	3290	A2	3337	A4	3365	B2	3406	C3	6332	C3	7326	B2	9453	B1	9490	B5	9521	B5
1251	C5	2261	B6	2350	C3	3262	C3	3292	C4	3338	A4	3366	B2	3407	C3	6360	A1	7327	B3	9455	A2	9492	B5	9522	B5
1252	B5	2262	A6	2352	B4	3263	C4	3295	A5	3339	A4	3367	A3	3409	A4	7240	A4	7328	A2	9456	C1	9493	A4	9524	B6
1259	A5	2263	A6	2353	C4	3264	C2	3300	C2	3341	A3	3368	B1	5300	C1	7241	A4	7329	B3	9457	B2	9494	A4	9525	B4
1260	A5	2265	C5	2355	B3	3265	A5	3301	C2	3342	A1	3369	A1	5301	A1	7242	A4	7330	B2	9458	B3	9495	B5	9526	C6
1261	A5	2300	C2	2360	C1	3268	C5	3302	C3	3343	A2	3370	A1	6250	A4	7250	A2	8240	B5	9460	B3	9496	A4	9527	C6
1262	A5	2320	C6	2361	C1	3269	C6	3303	C2	3344	B3	3371	C1	6251	A4	7251	A3	9250	C4	9462	A3	9497	B5	9528	B6
1263	A5	2321	C6	2362	C1	3270	C5	3304	C3	3345	B4	3372	C1	6252	C3	7252	A2	9251	C4	9465	B2	9498	A5	9529	A5
1264	A5	2322	C6	2363	A1	3271	C5	3305	C3	3346	B4	3373	C1	6253	C4	7253	A3	9252	C4	9467	A3	9499	A5	9530	A5
1280	C5	2323	B6	2364	B1	3272	C5	3306	C3	3347	B3	3374	A1	6254	C4	7254	C1	9253	C4	9468	B3	9500	A5	9531	B5
1300	C4	2324	A4	2365	B1	3273	A6	3320	C6	3348	B3	3375	A1	6256	C6	7255	C2	9320	A4	9470	B3	9501	B4	9532	A5
1321	B1	2325	A2	2370	B1	3274	A6	3321	C6	3349	C2	3376	B1	6257	C6	7256	C3	9321	A4	9472	C2	9502	B5	9533	C5
1322_A	C2	2328	A3	2371	A2	3275	B6	3322	C6	3350	B2	3377	B3	6258	C4	7259	C5	9323	B4	9473	C3	9503	A4	9534	C5
1322_B	B5	2329	A4	2372	A3	3276	A6	3323	C6	3351	B1	3378	B3	6259	A6	7260	A6	9329	C3	9474	C3	9504	A5	9535	C5
1323_A	C2	2330	A2	2390	A4	3277	B6	3324	C6	3352	B2	3379	B3	6260	B6	7261	A6	9330	A2	9475	B3	9505	A5	9536	C5
1323_B	B5	2331	A3	2391	A2	3278	A5	3325	B6	3353	B2	3380	C3	6261	A5	7262	A6	9331	A2	9476	B5	9506	A5	9537	B6
1330	A2	2332	A4	3250	A2	3279	A4	3326	B6	3354	B3	3381	C2	6262	A6	7263	A6	9333	A2	9477	B3	9507	B5	9538	C5
2250	A3	2333	A3	3251	A2	3280	A5	3327	B6	3355	B2	3382	B1	6263	A6	7264	C5	9341	B3	9478	B3	9508	B5	9540	A5
2251	A3	2334	A3	3252	A2	3281	A6	3328	B6	3356	B3	3392	A2	6264	C5	7265	C5	9342	C1	9481	B4	9509	A3	9960	A2
2252	A3	2335	A2	3253	A2	3282	A6	3329	C6	3357	B3	3393	A2	6265	A6	7300	C3	9343	B1	9482	B4	9510	A5	9961	B3
2253	A3	2336	A3	3254	A2	3283	A6	3330	C6	3358	A3	3395	A2	6320	C6	7301	C4	9355	B3	9483	C5	9512	A6	9962	A4
2254	C4	2339	A1	3255	A3	3284	A6	3331	C6	3359	B2	3400	A4	6321	C6	7320	C6	9356	B2	9484	C5	9514	A6	9963	A1
2255	C3	2340	A3	3256	A3	3285	A6	3332	C6	3360	B1	3401	B4	6322	C6	7321	B6	9360	B1	9485	B4	9515	A6	9964	C3
2256	C4	2341	A3	3257	A3	3286	C5	3333	C6	3361	B3	3402	A5	6323	B6	7322	B6	9361	A1	9486	B4	9516	B6	9965	C3
2257	C3	2342	B3	3258	C2	3287	C5	3334	A4	3362	B2	3403	A4	6324	B2	7323	B6	9362	A1	9487	B4	9517	B6		
2258	C3	2343	B4	3259	C2	3288	C5	3335	A4	3363	B2	3404	A3	6330	C1	7324	C6	9363	B1	9488	B4	9519	A5		
2259	C2	2344	B3	3260	C2	3289	C6	3336	A3	3364	B2	3405	C3	6331	A1	7325	C6	9452	C1	9489	B4	9520	B6		


1
2
3
4
5
6
A
B
C
MOD_P2002/boards/3139_113_34721_01/8239_210_91570 [100 -135W]
1280 T1A CDR T2A5

This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

3139 113 3472 pt1 dd wk0151

LEFT/RIGHT AMPLIFIER & SUPPLY BOARD - CIRCUIT DIAGRAM (PART 1)


1 2 3 4 5 6 7 8 9
A B C D E F
EH-B 1250
EH-B 1251
A1
B1
GND_D
GND_D
B2
A2
+D
GND
+D2
T2.5A FOR CDR T1A 1280
CDR ONLY 9250
NON CDR 9251
B1
3250 2K2
2250 100u/50V
7250 BDX53BFP
27.5V
11.8V
★3290 0R33
9960
12.9V
3251 2K2
★3252 33K
3253 470R
★3254 470R
BC547B ★7252
2252 3n3
12.5V
12.8V
7251 BC547B
7253 BC547B
0V
0.6V
3255 180R
3256 120R
GND_M
+11V Reg
+11V_A
+11V_M
2251 10u/50V
6251 BZX79-B10
2253 47u/25V
6250 BZX79-C15
3257 10K
9962
+11V_cdr
STP16NE06 7240
B1
VCD_ON
3400 1K
3401 100K
3409 100K
3402 100K
3403 100K
7242 BC547B
7241 BC547B
CDR only
9252 NON CDR
+5V6
9253 CDR ONLY
7254 BDW94C
3258 22K
2255 220u/16V
2256 10u/16V
6252 BZX55-B4V7
3260 2K2
3261 100K
3262 100R
3259 470K
7255 BC547B
7256 BC547B
2254 1u/50V
3263 150R
CDR ONLY
7257 L7805
13V
5.7V
IN GND OUT
2257 10u/50V
2258 100n
6253 1N4148
6254 1N4003
3264 10K
2259 100n
NON-CDR
+5V6
3273 680R
5.7V
3276 47K
BC557B 7261
6259 BZX79-C6V8
AMP_LR_DC
7260 BC547B
4.5V
0.3V
3275 33K
6260 1N4148
2260 10n/16V
3274 100K
3277 100K
2261 100u/10V
SAT
3278 10K
★6262 1N4148
★3282 3K9
+5V
★6261 1N4148
★2262 100n
NTC
3283 680R
6263 1N4148
2263 10u/50V
LPS
3279 47K
3295 1K
6265 BZX79-C5V1
7262 BC547B
3281 39K
7263 BC547B
3284 47K
3280 8K2
3285 56K
FFC 1259
FFC 1260
FFC 1261
AF_left
GND_pa
AF_right
NTC
LPC
PD
CLIP
AMP_ON
-Vkk
F1
F2
AMP_CS_DC
CDR ON or VCD_ON
To AF
VCD sets only
EH-B 1262
EH-B 1263
LPS
+11V_A
GND_A
+11V_M
GND_M
+5V6
GND_D
5V_VCD
CDR sets only
EH-B 1264
+11V_cdr
GND_M
GND_D
GND_D
5V_CDR
5V_CDR
To CDR
FE-BT-VK-N 1252
-Vkk
F1
F2
PD
NTC
LSTBY
LPS
3265 2K2
+11V_M
3269 6K8
6256 1N4148
3270 1K
3268 15K
6257 1N4148
7259 BC337-25
3271 2K7
3272 5K6
6258 BZX79-B5V6
3292 3K3
★3406 1K5
★7301 BC547B
★3405 120K
9964
9965
★3407 120K
3300 470R
3301
Heatsink NTC
3302 270R
3304 1R
BC327-25 7300
3303 1K
2300 100u/25V
3305 270R
3306 270R
EH-B 1300
To fan
gnd_f
BD438 7264
3286 1K
3287 1K
3288 4K7
7265 BC547B
6264 1N4148
3289 8K2
2265 47u/16V
VCD 5V
1322_A
1323_A
gnd_al
gnd_ar
GND
GND_D
GND_A
GND_M
gnd_f

★ : PROVISION

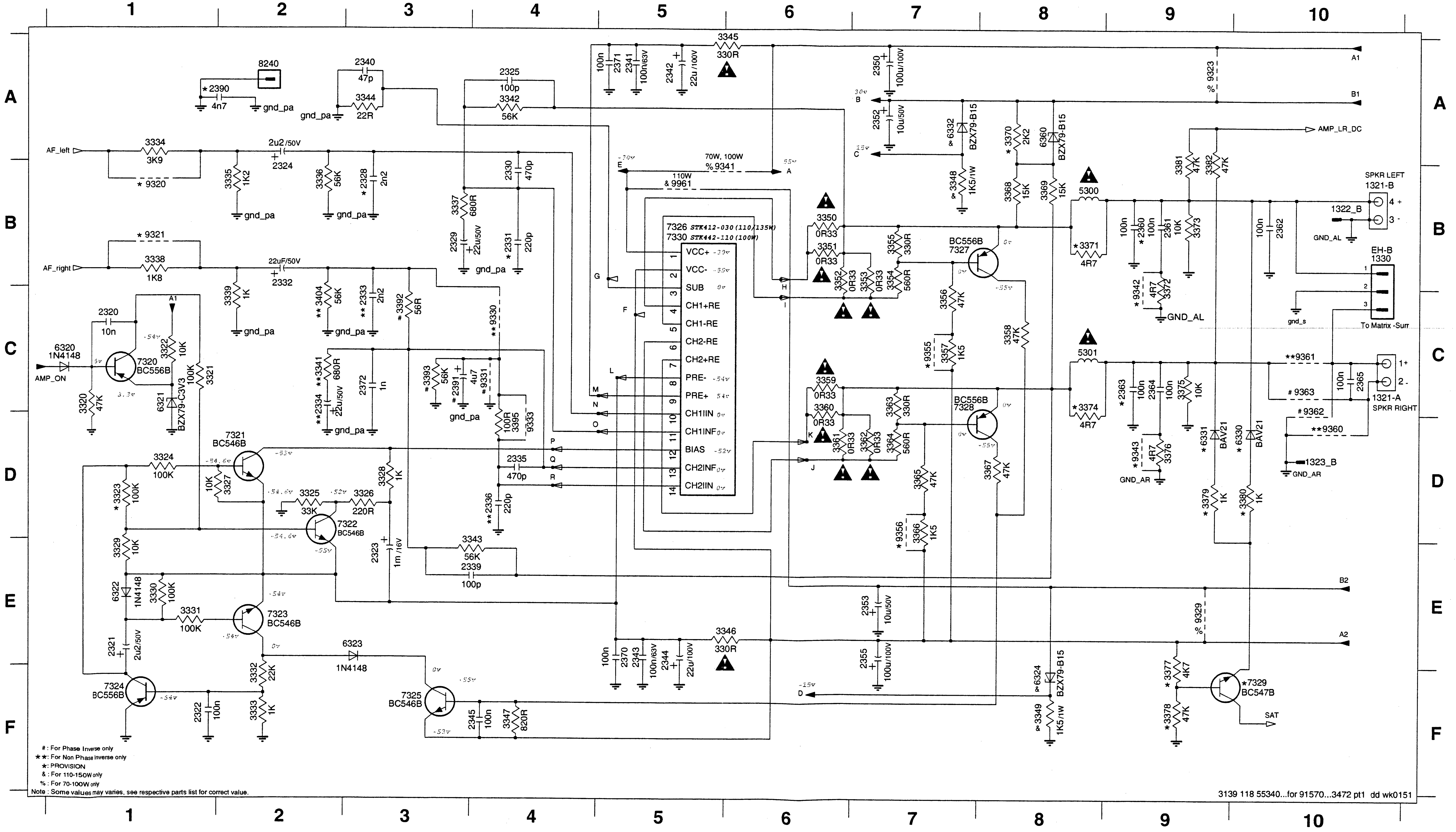
Note : Some values may varies, see respective parts list for correct value.

3139 118 55340...for 91570...3472 pt1 dd wk0151

1250	A1
1251	A1
1252	F1
1259	A9
1260	A9
1261	A9
1262	C9
1263	C9
1264	E9
1280	B1
1300	F7
1322_A	F9
1323_A	F9
2250	A3
2251	A3
2252	B3
2253	A4
2254	E1
2255	D1
2256	D2
2257	D3
2258	D3
2259	D4
2260	B6
2261	B7
2262	C6
2263	C7
2265	F8
2300	F6
3250	A2
3251	B2
3252	B2
3253	B2
3254	B3
3255	B3
3256	B3
3257	A5
3258	D1
3259	D1
3260	D1
3261	D1
3262	D2
3263	E2
3264	D4
3265	F2
3268	E3
3269	E3
3270	E4
3271	F3
3272	F4
3273	A6
3274	B6
3275	A7
3276	A7
3277	B7
3278	C6
3279	D6
3280	D6
3281	D7
3282	C7
3283	C7
3284	D7
3285	D7
3286	F7
3287	F7
3288	F8
3289	F8
3290	A3
3292	F4
3295	C7
3300	F5
3301	F5
3302	E6
3303	F6
3304	E6
3305	F6
3306	F6
3400	A4
3401	A4
3402	B5
3403	B5
3405	F5
3406	E4
3407	F5
3409	B4
6250	A5
6251	A3
6252	D2
6253	D3
6254	D4
6256	E4
6257	E3
6258	F4
6259	A7
6260	A7
6261	C6
6262	C6
6263	C7
6264	F7
6265	D6
7240	A4
7241	B5
7242	B4
7250	A2
7251	B2
7252	B3
7253	B3
7254	C1
7255	E1
7256	E1
7257	C3
7259	F3
7260	A6
7261	A6
7262	D6
7263	D7
7264	E7
7265	F7
7300	F6
7301	F4
9250	C1
9251	C1
9252	C4
9253	C4
9960	A3
9962	A5
9964	F5
9965	F5

LEFT/RIGHT AMPLIFIER & SUPPLY BOARD - CIRCUIT DIAGRAM (PART 2)

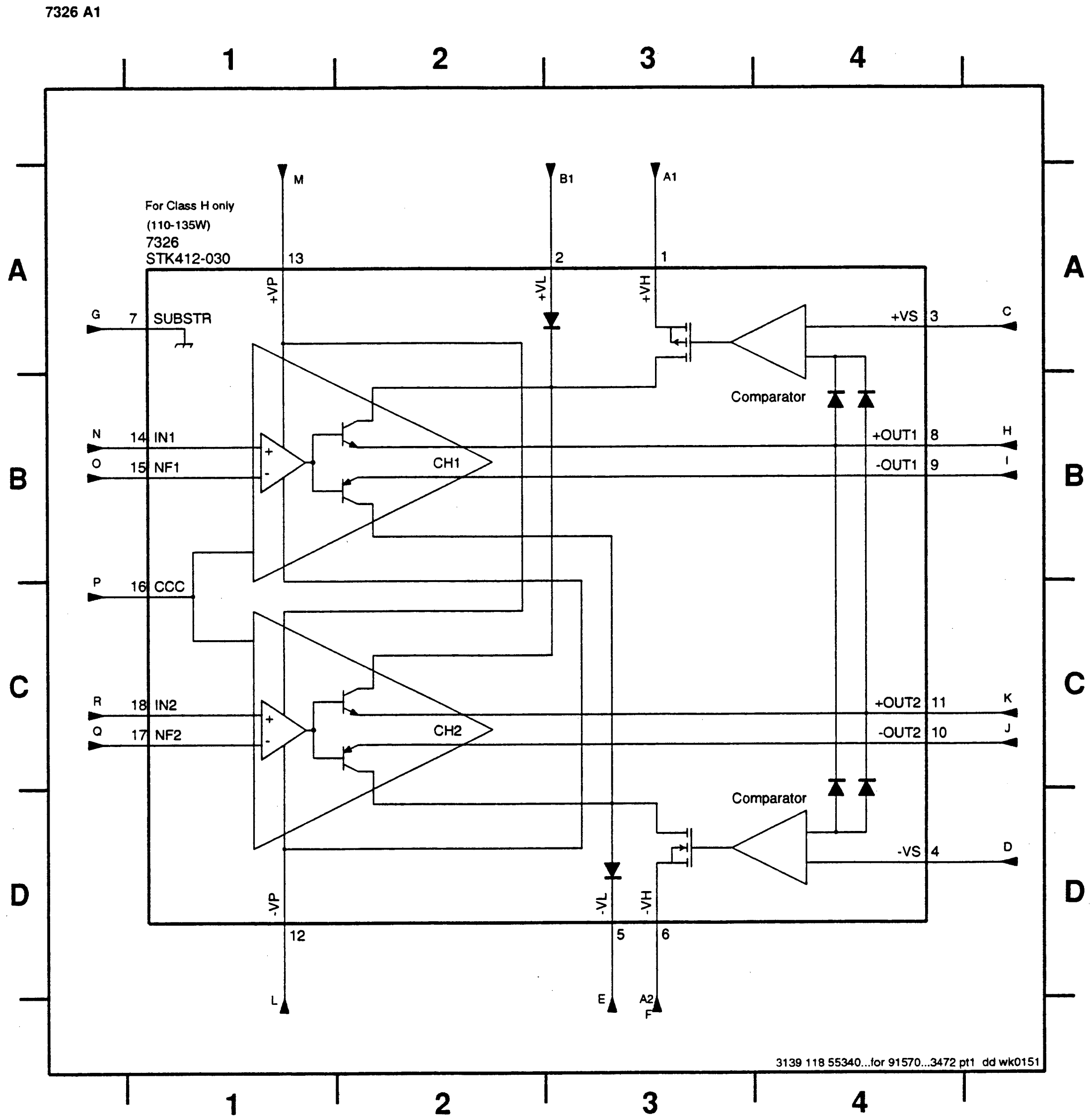
1321-A	C10
1321-B	B10
1322_B	B10
1323_B	D10
1330	B10
2320	C1
2321	E1
2322	F1
2323	E3
2324	B2
2325	A4
2328	B3
2329	B3
2330	B4
2331	B4
2332	B2
2333	C3
2334	C2
2335	D4
2336	D4
2339	E4
2340	A3
2341	A5
2342	A5
2343	E5
2344	E5
2345	F4
2350	A7
2352	A7
2353	E7
2355	E7
2360	B9
2361	B9
2362	B10
2363	C9
2364	C9
2365	C10
2370	E5
2371	A5
2372	C3
2390	A2
2391	C3
3320	C1
3321	C1
3322	C1
3323	D1
3324	D1
3325	D2
3326	D3
3327	D2
3328	D3
3329	E1
3330	E1
3331	E1
3332	F2
3333	F2
3334	A1
3335	B2
3336	B2
3337	B3
3338	B1
3339	C2
3341	C2
3342	A4
3343	E4
3344	A3
3345	A6
3346	E6
3347	F4
3348	B7
3349	F8
3350	B6
3351	B6
3352	B6
3353	B7
3354	B7
3355	B7
3356	C7
3357	C7
3358	C8
3359	C6
3360	C6
3361	D6
3362	D7
3363	C7
3364	D7
3365	D7
3366	D7
3367	D8
3368	B8
3369	B8
3370	A8
3371	B8
3372	B9
3373	B9
3374	C8
3375	C9
3376	D9
3377	F9
3378	F9
3379	D9
3380	D10
3381	B9
3382	B9
3392	C3
3393	C3
3395	D4
3404	C2
5300	B8
5301	C8
6320	C1
6321	C1
6322	E1
6323	E3
6324	F8
6330	D10
6331	D9
6332	A7
6360	A8
7320	C1
7321	D2
7322	D2
7323	E1
7324	F1
7325	F3
7327	B7
7328	C7
7329	F10
7330	B5
8240	A2
9320	B1
9321	B1
9323	A9
9329	E9
9330	C4
9331	C4
9333	D4
9341	B5
9342	B9
9343	D9
9355	C7
9356	D7
9360	D10
9361	C10
9362	C10
9363	C10
9961	B5


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
8240
2340
47p
*2390
4n7
gnd_pa
3344
22R
2325
100p
3342
56K
3345
330R
100n
2371
2341
100n/63V
2342
22u/100V
2350
100u/100V
A1
B1
AF_left
3334
3K9
*9320
3335
1K2
2u2/50V
2324
3336
56K
*2328
2n2
2330
470p
70W, 100W
%9341
110W
& 9961
-30v
E
55v
A
30v
B
2352
10u/50V
-15v
C
*6332
BZX79-B15
& 3348
1K5/1W
*3370
2K2
6360
BZX79-B15
3368
15K
3369
15K
3381
47K
3382
47K
AMP_LR_DC
SPKR LEFT
1321-B
4 +
3 -
1322_B
GND_AL
AF_right
*9321
3338
1K8
3339
1K
22uF/50V
2332
**3404
56K
**2333
2n2
#3392
56R
3337
680R
2329
22u/50V
*2331
220p
gnd_pa
G
F
7326 STK412-030 (110/135W)
7330 STK442-110 (100W)
VCC+
VCC-
SUB
CH1+RE
CH1-RE
CH2-RE
CH2+RE
PRE-
PRE+
CH1IIN
CH1INF
BIAS
CH2INF
CH2IIN
3350
0R33
3351
0R33
3352
0R33
3353
0R33
3354
560R
3355
330R
BC556B
7327
3356
47K
*9355
3357
1K5
3358
47K
5300
*3371
4R7
100n
*2360
2361
3373
10K
*9342
3372
4R7
GND_AL
2362
EH-B
1330
gnd_s
To Matrix -Surr
**9330
2320
10n
A1
6320
1N4148
AMP_ON
7320
BC556B
3322
10K
3321
100K
3320
47K
6321
BZX79-C3V3
**3341
680R
**2334
22u/50V
2372
1n
#3393
56K
#2391
4u7
**9331
3395
100R
9333
L
M
N
O
P
Q
R
H
I
K
J
3359
0R33
3360
0R33
3361
0R33
3362
0R33
3363
330R
3364
560R
BC556B
7328
3365
47K
*9356
3366
1K5
3367
47K
5301
*3374
4R7
*2363
100n
2364
100n
3375
10K
*9343
3376
4R7
GND_AR
*6331
BAV21
*6330
BAV21
**9361
#9363
#9362
**9360
2365
100n
1321-A
SPKR RIGHT
1+
2-
1323_B
GND_AR
7321
BC546B
3324
100K
3327
10K
*3323
100K
3325
33K
3326
220R
3328
1K
7322
BC546B
2335
470p
**2336
220p
3329
10K
2323
1m/16V
3343
56K
2339
100p
6322
1N4148
3330
100K
3331
100K
7323
BC546B
2321
2u2/50V
7324
BC556B
2322
100n
3332
22K
3333
1K
6323
1N4148
7325
BC546B
2345
100n
3347
820R
3346
330R
2370
100n
2343
100n/63V
2344
22u/100V
B2
A2
2353
10u/50V
2355
100u/100V
-15v
D
& 6324
BZX79-B15
& 3349
1K5/1W
% 9329
% 9323
*3377
4K7
*3378
47K
*7329
BC547B
SAT
*3379
1K
*3380
1K

#: For Phase Inverse only
★★: For Non Phase Inverse only
★: PROVISION
&: For 110-150W only
%: For 70-100W only
Note : Some values may varies, see respective parts list for correct value.

3139 118 55340...for 91570...3472 pt1 dd wk0151

LEFT/RIGHT AMPLIFIER & SUPPLY BOARD - CIRCUIT DIAGRAM (PART 3)



MECHANICAL PARTS LIST

0002	4822 492 11735	SPRING TRANS

ELECTRICAL PARTS LIST - MAINS BOARD

MISCELLANEOUS

1901	4822 265 31015	⚠ Mains Socket	/21/22/30
1901	2422 030 00328	⚠ Mains Socket	/37
1902	2422 129 16478	⚠ Voltage Selector 2P 5A	/21
1903	4822 071 52001	⚠ Fuse RAD LT 200mA 250V	/21
1904	4822 071 52001	⚠ Fuse RAD LT 200mA 250V	/21
1905	2422 086 10963	⚠ Fuse RAD LT 5A 250V	/21/22/30
1905	4822 252 51123	⚠ Fuse RAD LT 6,3A 250V	/37
1914	4822 267 10953	Flex Connector 7P	
1921	4822 071 55002	⚠ Fuse RAD LT 5A 250V	
1922	4822 071 55002	⚠ Fuse RAD LT 5A 250V	
1923	4822 071 55002	⚠ Fuse RAD LT 5A 250V	
1924	4822 071 55002	⚠ Fuse RAD LT 5A 250V	
1925	4822 071 52502	⚠ Fuse RAD LT 2,5A 250V	
1926	4822 071 51602	⚠ Fuse RAD LT 1,6A 250V	

CAPACITORS

2901	4822 121 43526	47nF 5% 250V	
2902	4822 121 43526	47nF 5% 250V	
2903	4822 124 40207	100uF 20% 25V	/21
2904	4822 124 40255	100uF 20% 63V	

ELECTRICAL PARTS LIST - MAINS BOARD

2912	4822 124 22652	2,2uF 20% 50V	/21
2912	4822 124 21913	1uF 20% 63V	/22/30/37
2921	2022 318 00109	100nF 10% 250V	
2922	2022 318 00109	100nF 10% 250V	
2923	2022 318 00109	100nF 10% 250V	
2924	4822 121 43526	47nF 5% 250V	
2925	4822 121 43526	47nF 5% 250V	
2926	4822 121 43526	47nF 5% 250V	
2927	2020 024 90733	4700uF 20% 80V	
2928	2020 024 90733	4700uF 20% 80V	
2930	2022 020 00644	3300uF 20% 50V	
2932	2022 020 00644	3300uF 20% 50V	
2941	5322 121 42386	100nF 5% 63V	
2942	5322 121 42386	100nF 5% 63V	
2944	4822 124 42367	3300uF 20% 35V	
2945	9965 000 12531	6800uF 25V 20%	
2948	4822 123 14025	2200uF 20% 16V	

RESISTORS

3901	4822 053 21106	⚠ 10M 5% 0,5W	/37
3902	4822 053 10471	470R 5% 1W	/22/30
3902	4822 053 10121	120R 5% 1W	/37
3903	4822 050 11002	1k 1% 0,4W	
3904	4822 050 11002	1k 1% 0,4W	
3905	4822 116 52283	4k7 5% 0,5W	/21
3905	4822 116 52244	15k 5% 0,5W	/22/30/37
3906	4822 116 52256	2k2 5% 0,5W	/21
3907	4822 050 21003	10k 1% 0,6W	/21
3912	4822 116 52234	100k 5% 0,5W	
3913	4822 050 21003	10k 1% 0,6W	
3914	4822 116 52176	10R 5% 0,5W	
3922	4822 050 23303	33k 1% 0,6W	
3923	4822 050 23303	33k 1% 0,6W	
3941	4822 117 11342	⚠ 0R33 5% 2W	
3942	4822 117 11342	⚠ 0R33 5% 2W	
3951	4822 052 10479	⚠ 47R 5% 0,33W	
3952	4822 116 83961	6k8 5%	
3953	4822 116 83961	6k8 5%	
3954	4822 116 83881	390R 5% 0,5W	
3955	4822 050 11002	1k 1% 0,4W	/21/37
3955	4822 116 52263	2k7 5% 0,5W	/22/30

COILS & FILTERS

5900	4822 157 11832	⚠ 400uH 3A	/22/30
5901	4822 157 11628	⚠ Mains Choke	/21
5903	3103 308 30600	⚠ Transformer Standby	/21
5903	3103 308 30610	⚠ Transformer Standby	/22/30
5903	3103 308 30800	⚠ Transformer Standby	/37
5905	4822 280 10382	⚠ Relay 1P 9V 10/80A SDT-SS	

DIODES

6900	4822 130 31878	1N4003G	/22/30/37
6901	4822 130 32245	BYV10-40	/21
6901	4822 130 31878	1N4003G	/22/30/37
6902	4822 130 32245	BYV10-40	/21
6902	4822 130 31878	1N4003G	/22/30/37
6903	4822 130 32245	BYV10-40	/21
6903	4822 130 31878	1N4003G	/22/30/37
6904	4822 130 32245	BYV10-40	/21
6904	4822 130 31878	1N4003G	/22/30/37
6905	4822 130 30621	1N4148	
6906	4822 130 30621	1N4148	
6907	4822 130 34382	BZX79-C8V2	/21
6908	4822 130 32245	BYV10-40	/21
6909	4822 130 31878	1N4003G	/21
6910	4822 130 30621	1N4148	
6911	4822 130 30621	1N4148	
6915	4822 130 30621	1N4148	
6916	4822 130 34382	BZX79-C8V2	
6917	4822 130 30621	1N4148	
6918	4822 130 30621	1N4148	
6921	4822 130 10944	⚠ GBU6D	
6922	4822 130 10944	⚠ GBU6D	
6923	4822 130 31878	1N4003G	
6923	5322 130 80686	1N5392	
6924	4822 130 31878	1N4003G	
6924	5322 130 80686	1N5392	
6925	4822 130 31878	1N4003G	
6925	5322 130 80686	1N5392	
6926	4822 130 31878	1N4003G	
6926	5322 130 80686	1N5392	
6927	4822 130 31878	1N4003G	
6927	5322 130 80686	1N5392	
6928	4822 130 31878	1N4003G	
6928	5322 130 80686	1N5392	
6930	4822 130 34233	BZX79-C5V1	
6955	4822 130 34142	BZX79-C33	
6956	4822 130 31878	1N4003G	

TRANSISTORS & INTEGRATED CIRCUITS

7901	4822 130 41246	BC327-25	/21
7902	4822 130 40959	BC547B	/21
7911	4822 130 40959	BC547B	
7912	4822 130 40959	BC547B	
7951	4822 130 41327	BC327-40	
7952	4822 130 41327	BC327-40	

Note : Only the parts mentioned in this list are normal service spare parts.

ELECTRICAL PARTS LIST - LEFT/RIGHT AMPLIFIER & SUPPLY BOARD

MISCELLANEOUS

0028	3139 114 73910	Holder STK PWR2002 150W
1252	4822 267 10953	Flex Connector 7P
1259	4822 267 11039	Flex Connector 11P
1280	4822 071 51002 ⚠	Fuse RAD LT 1A 250V
1321	4822 267 31176	L/R Speaker Terminal

CAPACITORS

2250	4822 124 40255	100uF 20% 63V
2251	4822 124 40248	10uF 20% 63V
2252	4822 122 10577	3,3nF 10% 16V
2253	4822 124 40433	47uF 20% 25V
2257	4822 124 40248	10uF 20% 63V
2258	5322 121 42386	100nF 5% 63V
2259	5322 121 42386	100nF 5% 63V
2260	4822 121 51387	10nF 20% 16V
2261	4822 124 41584	100uF 20% 10V
2263	4822 124 40248	10uF 20% 63V
2300	4822 124 40207	100uF 20% 25V
2320	4822 121 43693	10nF 100V
2321	4822 124 22652	2,2uF 20% 50V
2322	5322 121 42386	100nF 5% 63V
2323	4822 124 81144	1000uF 16V
2324	4822 124 22652	2,2uF 20% 50V
2325	4822 122 33195	100pF 10% 50V
2329	4822 124 81151	22uF 50V
2330	4822 122 33519	470pF 10% 50V
2332	4822 124 81151	22uF 50V
2335	4822 122 33519	470pF 10% 50V
2339	4822 122 33195	100pF 10% 50V
2340	4822 126 12726	47pF 5% 50V
2341	5322 121 42386	100nF 5% 63V
2342	4822 124 40764	22uF 100 V
2343	5322 121 42386	100nF 5% 63V
2344	4822 124 40764	22uF 100 V
2345	2020 561 90365	100nF +80/-20% 50V
2350	2020 012 93547	100uF 20% 63V
2352	4822 124 40248	10uF 20% 63V
2353	4822 124 40248	10uF 20% 63V
2355	2020 012 93547	100uF 20% 63V
2361	5322 121 42386	100nF 5% 63V
2362	4822 121 43856	4,7nF 5% 250V
2364	5322 121 42386	100nF 5% 63V
2365	4822 121 43856	4,7nF 5% 250V
2370	2020 561 90365	100nF +80/-20% 50V
2371	2020 561 90365	100nF +80/-20% 50V
2372	4822 122 33197	1nF 10% 50V
2391	4822 124 40769	4,7uF 20% 100V

RESISTORS

3250	4822 116 52256	2k2 5% 0,5W	
3251	4822 116 52256	2k2 5% 0,5W	
3253	4822 116 83883	470R 5% 0,5W	
3255	4822 116 52213	180R 5% 0,5W	
3256	4822 116 52206	120R 5% 0,5W	
3257	4822 050 21003	10k 1% 0,6W	
3264	4822 050 21003	10k 1% 0,6W	
3265	4822 050 11002	1k 1% 0,4W	
3268	4822 116 52244	15k 5% 0,5W	
3269	4822 116 83961	6k8 5%	
3270	4822 050 11002	1k 1% 0,4W	
3271	4822 116 52263	2k7 5% 0,5W	
3272	4822 116 52289	5k6 5% 0,5W	
3273	4822 116 52228	680R 5% 0,5W	
3274	4822 116 52234	100k 5% 0,5W	
3275	4822 050 23303	33k 1% 0,6W	
3276	4822 116 83884	47k 5% 0,5W	
3277	4822 116 52234	100k 5% 0,5W	
3279	4822 116 83884	47k 5% 0,5W	
3280	4822 116 52303	8k2 5% 0,5W	
3281	4822 116 83882	39k 5% 0,5W	
3283	4822 116 52228	680R 5% 0,5W	
3284	4822 116 83884	47k 5% 0,5W	
3285	4822 116 52291	56k 5% 0,5W	
3292	4822 116 52269	3k3 5% 0,5W	
3295	4822 050 11002	1k 1% 0,4W	/21/37
3295	4822 116 52263	2k7 5% 0,5W	/22/30
3300	4822 116 83883	470R 5% 0,5W	
3301	4822 117 12063	NTC DC 5W 10k 5%	
3302	4822 116 83876	270R 5% 0,5W	
3303	4822 050 11002	1k 1% 0,4W	
3304	4822 052 10108 ⚠	1R 5% 0,33W	
3305	4822 116 83876	270R 5% 0,5W	
3306	4822 116 83876	270R 5% 0,5W	
3320	4822 116 83884	47k 5% 0,5W	
3321	4822 116 52234	100k 5% 0,5W	
3322	4822 050 21003	10k 1% 0,6W	
3324	4822 116 52234	100k 5% 0,5W	
3325	4822 050 23303	33k 1% 0,6W	
3326	4822 116 83872	220R 5% 0,5W	
3327	4822 050 21003	10k 1% 0,6W	
3328	4822 050 11002	1k 1% 0,4W	
3329	4822 050 21003	10k 1% 0,6W	
3330	4822 116 52234	100k 5% 0,5W	
3331	4822 116 52234	100k 5% 0,5W	
3332	4822 116 52257	22k 5% 0,5W	
3333	4822 050 11002	1k 1% 0,4W	
3334	4822 116 52276	3k9 5% 0,5W	
3335	4822 116 52207	1k2 5% 0,5W	
3336	4822 116 52291	56k 5% 0,5W	
3337	4822 116 52228	680R 5% 0,5W	
3338	4822 116 52249	1k8 5% 0,5W	
3339	4822 050 11002	1k 1% 0,4W	
3342	4822 116 52291	56k 5% 0,5W	
3343	4822 116 52291	56k 5% 0,5W	

ELECTRICAL PARTS LIST - LEFT/RIGHT AMPLIFIER & SUPPLY BOARD

3344	4822 116 52186	22R 5% 0,5W	
3345	4822 052 10221 ⚠	220R 5% 0,33W	/21/22/30
3345	4822 052 10331 ⚠	330R 5% 0,33W	/37
3346	4822 052 10221 ⚠	220R 5% 0,33W	/21/22/30
3346	4822 052 10331 ⚠	330R 5% 0,33W	/37
3347	4822 116 52228	680R 5% 0,5W	
3348	4822 053 10152	1k5 5% 1W	
3349	4822 053 10152	1k5 5% 1W	
3350	2322 194 96001 ⚠	RST MFLM PR02 A 0R33 PM5	
3351	2322 194 96001 ⚠	RST MFLM PR02 A 0R33 PM5	
3352	2322 194 96001 ⚠	RST MFLM PR02 A 0R33 PM5	
3353	2322 194 96001 ⚠	RST MFLM PR02 A 0R33 PM5	
3354	4822 116 52226	560R 5% 0,5W	
3355	4822 116 52219	330R 5% 0,5W	
3356	4822 116 83884	47k 5% 0,5W	
3357	4822 116 52243	1k5 5% 0,5W	
3358	4822 116 83884	47k 5% 0,5W	
3359	2322 194 96001 ⚠	RST MFLM PR02 A 0R33 PM5	
3360	2322 194 96001 ⚠	RST MFLM PR02 A 0R33 PM5	
3361	2322 194 96001 ⚠	RST MFLM PR02 A 0R33 PM5	
3362	2322 194 96001 ⚠	RST MFLM PR02 A 0R33 PM5	
3363	4822 116 52219	330R 5% 0,5W	
3364	4822 116 52226	560R 5% 0,5W	
3365	4822 116 83884	47k 5% 0,5W	
3366	4822 116 52243	1k5 5% 0,5W	
3367	4822 116 83884	47k 5% 0,5W	
3368	4822 116 52244	15k 5% 0,5W	
3369	4822 116 52244	15k 5% 0,5W	
3372	4822 053 10478	4R7 5% 1W	
3373	4822 050 21003	10k 1% 0,6W	
3375	4822 050 21003	10k 1% 0,6W	
3376	4822 053 10478	4R7 5% 1W	
3381	4822 116 83884	47k 5% 0,5W	
3382	4822 116 83884	47k 5% 0,5W	
3392	4822 050 15609	56R 1% 0,4W	/21
3392	2122 101 02081	56R 5%	/22/30/37
3393	4822 116 52291	56k 5% 0,5W	
3395	4822 116 52175	100R 5% 0,5W	

COILS & FILTERS

5300	2422 536 00615 ⚠	Coil 11,5T 1.0-2UEW 8,0D B
5301	2422 536 00615 ⚠	Coil 11,5T 1.0-2UEW 8,0D B

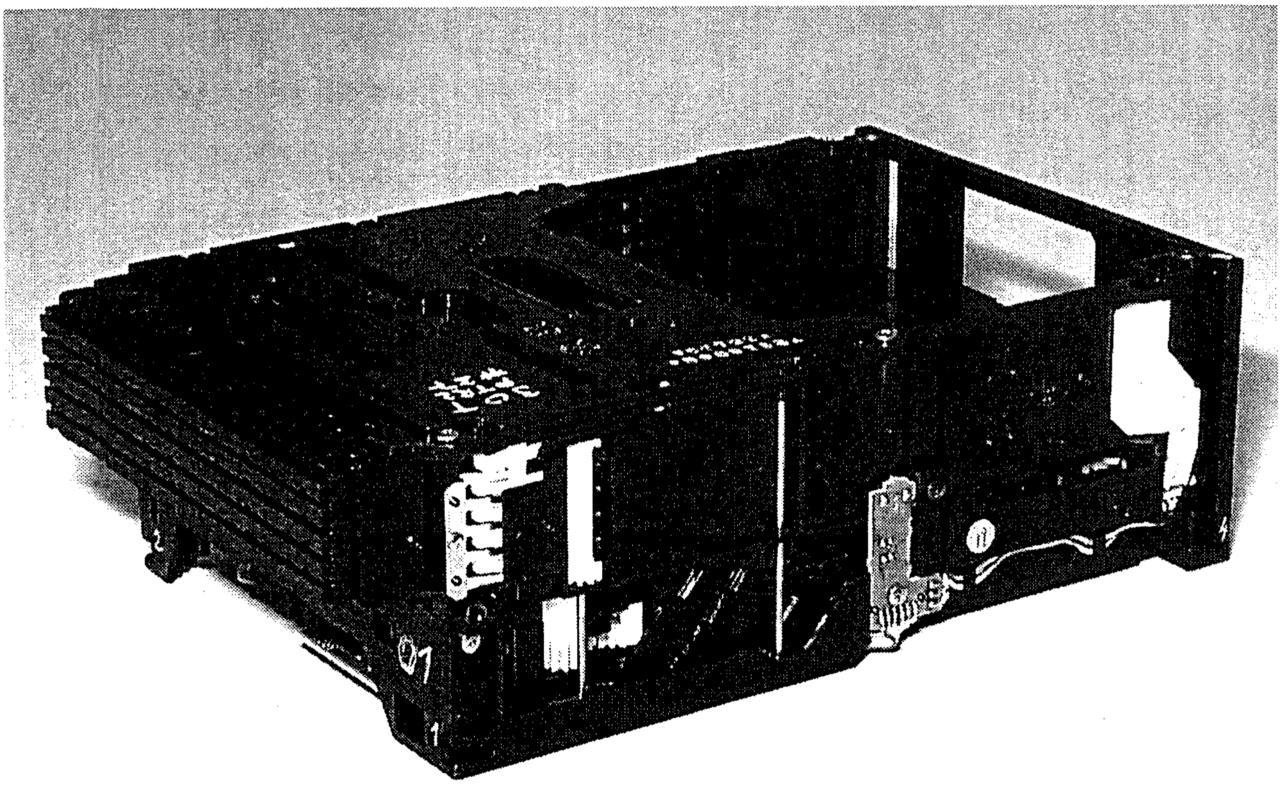
DIODES

6250	4822 130 34281	BZX79-C15
6251	4822 130 61219	BZX79-B10
6253	4822 130 30621	1N4148
6254	4822 130 31878	1N4003G
6256	4822 130 30621	1N4148
6257	4822 130 30621	1N4148
6258	4822 130 83206	BZX79-B5V6
6259	4822 130 34278	BZX79-C6V8
6260	4822 130 30621	1N4148
6263	4822 130 30621	1N4148
6265	4822 130 34233	BZX79-C5V1
6320	4822 130 30621	1N4148
6321	5322 130 31504	BZX79-C3V3
6322	4822 130 30621	1N4148
6323	4822 130 30621	1N4148
6324	4822 130 34281	BZX79-B15
6332	4822 130 34281	BZX79-B15
6360	4822 130 34281	BZX79-B15

TRANSISTORS & INTEGRATED CIRCUITS

7250	9322 139 23687	BDX53BFP
7251	4822 130 40959	BC547B
7253	4822 130 40959	BC547B
7257	4822 209 31841	L7805CP
7259	4822 130 40981	BC337-25
7260	4822 130 40959	BC547B
7261	4822 130 44568	BC557B
7262	4822 130 40959	BC547B
7263	4822 130 40959	BC547B
7300	4822 130 41246	BC327-25
7320	4822 130 41691	BC556B
7321	4822 130 44461	BC546B
7322	4822 130 44461	BC546B
7323	4822 130 44461	BC546B
7324	4822 130 41691	BC556B
7325	4822 130 44461	BC546B
7326	9322 180 27682	STK412-030I
7327	4822 130 41691	BC556B
7328	4822 130 41691	BC556B

Note : Only the parts mentioned in this list are normal service spare parts.



5DTC Module

(Basic version)

Layout stage .4

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CD BOARD

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CONTROL BOARD

Circuit Diagram 10-13
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In case of symptom „skipping tracks“ perform following actions:

1. VERIFY THE COMPLAINT

PLAYABILITY CHECK

Use CDDA SBC 444A: 4822 397 30245
TR 14 (600µ black dot) maximum at 01:15
TR 19 (fingerprint)
TR 10 (1000µ wedge)

Use CD-RW Printed Audio Disk 7104 099 96611
TR 3 (Fingerprint)
TR 8 (600µ black dot) maximum at 01:00

- playback of all these tracks without audible disturbance
- jump forward/backward within a reasonable time

2. CLEAN THE LENS

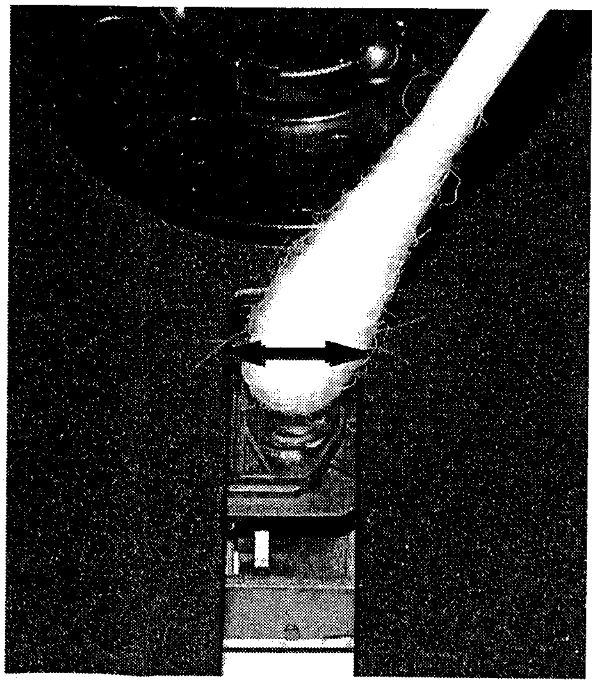
CD DRIVE – LENS CLEANING

Before touching the lens it is advised to clean the surface of the lens by blowing clean air over it in order to avoid that little particles make scratches on the lens.

Because the material of the lens is synthetic and coated with a special anti-reflectivity layer, cleaning must be done with a non-aggressive cleaning fluid. It is advised to use “KODAK LENS CLEANER CAT 176 71 36”, available in normal photo shops.

The actuator is a very precise mechanical component and may not be damaged in order to guarantee its full function. It is advised to clean the lens gently (don't press too hard) with a soft and clean cotton bud moistened with the special lens cleaner.

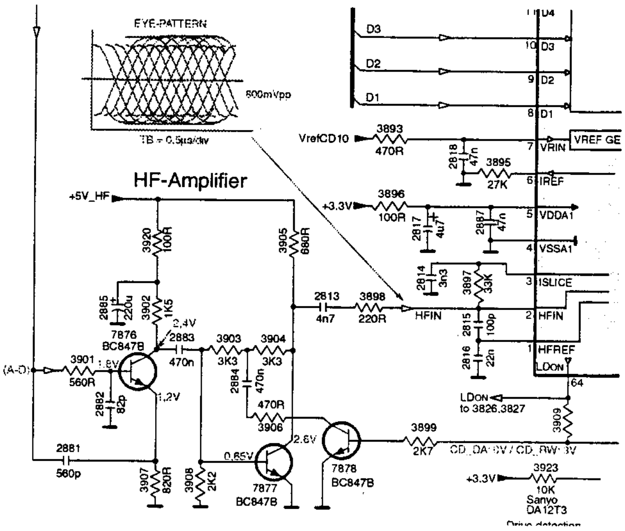
The direction of cleaning must be in the way as indicated in the picture below.



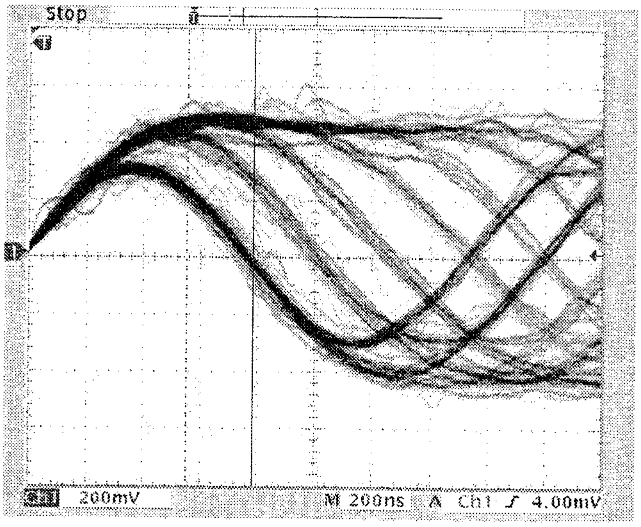
3. MEASURE THE EYE-PATTERN SIGNAL

EYE-PATTERN SIGNAL – JITTER MEASUREMENT

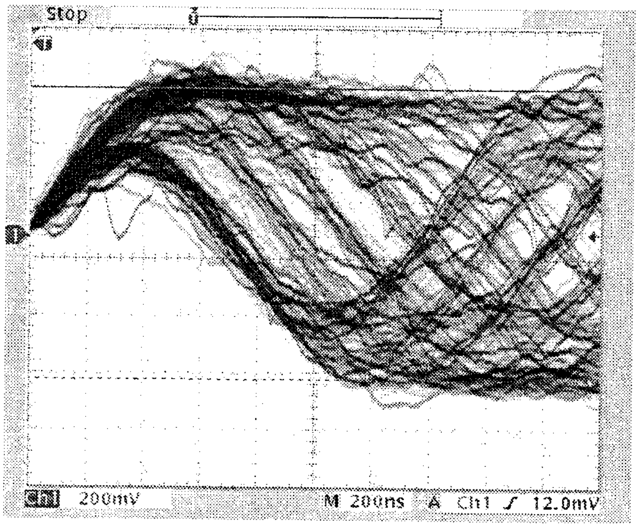
Measure the signal direct on resistor 3898 using an oscilloscope (see also chapter 10-9).


EYE-PATTERN
600mVpp
TB = 0.5µs/div
HF-Amplifier
+5V_HF
3920
100R
3905
680R
2885
220u
3902
1K5
2,4V
7876
BC847B
2883
470n
3903
3K3
3904
3K3
Σ (A-D)
3901
560R
1,8V
2882
82p
1,2V
2884
470n
470R
3906
2.6V
2881
560p
3907
820R
3908
2K2
0,65V
7877
BC847B
7878
BC847B
D3
D2
D1
D4
10 D3
9 D2
8 D1
VrefCD10
3893
470R
2818
47n
3895
27K
7 VRIN
VREF GE
6 IREF
+3.3V
3896
100R
2817
4u7
2887
47n
5 VDDA1
4 VSSA1
2814
3n3
3897
33K
3 ISLICE
2813
4n7
3898
220R
HFIN
2815
100p
2 HFIN
2816
22n
1 HFREF
LDON
64
LDON
to 3826,3827
3909
3899
2K7
CD_DA 0V / CD_RW 3V
3923
+3.3V
10K
Sanyo
DA12T3

See below examples of the signal. Amplitude should read at least 700mVpp using SBC444A.



good



bad

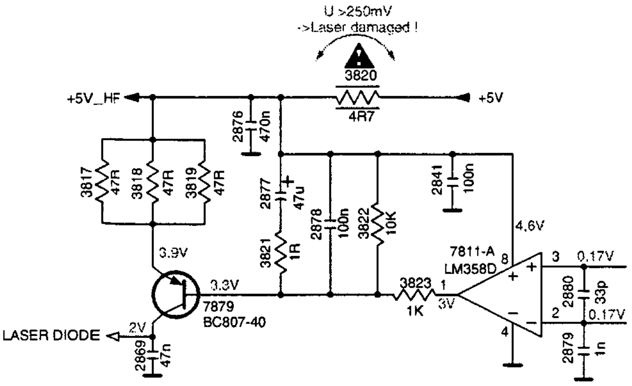
If the oscilloscope shows a signal like the ‘bad’ one, and/or the amplitude decreases within 1minute - the CD drive has to be replaced.

4. *MEASURE THE LASER CURRENT*

CD DRIVE – LASER CURRENT MEASUREMENT

The laser current can be measured as a voltage drop on resistor 3820. Typical value 170 - 190mV for CD-DA respectively 200 - 220mV for CD-RW.

Laser power control


U >250mV
->Laser damaged !
3820
4R7
+5V_HF
+5V
2876
470n
3817
47R
3818
47R
3819
47R
2877
47u
2878
100n
3822
10K
2841
100n
3821
1R
3.9V
3.3V
7879
BC807-40
4,6V
7811-A
LM358D
8
3823
1K
1
3V
3
0,17V
2880
33p
2
0,17V
4
2879
1n
LASER DIODE
2V
2869
47n

5. *MEASURE THE OFFSETS OF THE CD-DRIVE*

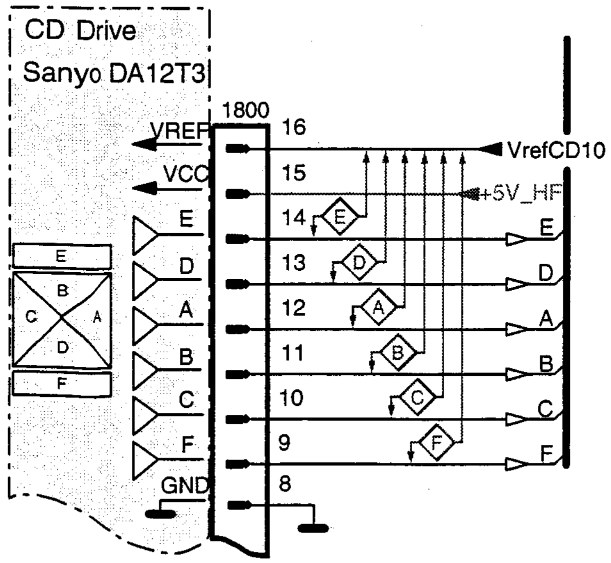
CD DRIVE – OFFSET MEASUREMENT

Each photodiode of the CD-drive may have an offset. This offset has to be compensated by the signal processor. A high offset of the CD-drive leads to poor playability of some CDs (skipping tracks).

Start the **Service Test Program** - section „Focus Test“ without a CD. Focus sensitivity = CD-RW.

Use a DC Millivoltmeter for measurement. The offsets can be measured direct on the connector. See drawing below.

The values from diode A-D should read 0±10mV. Diodes E and F are less critical.


CD Drive
Sanyo DA12T3
1800
VREF
VCC
E
D
A
B
C
F
GND
E
B
C
A
D
F
16
15
14
13
12
11
10
9
8
VrefCD10
+5V_HF
E
D
A
B
C
F

If one of the offsets is higher than ±10mV the CD drive has to be replaced.

6. *MEASURE THE OFFSETS OF THE CD10*

SIGNAL PROCESSOR – OFFSET MEASUREMENT

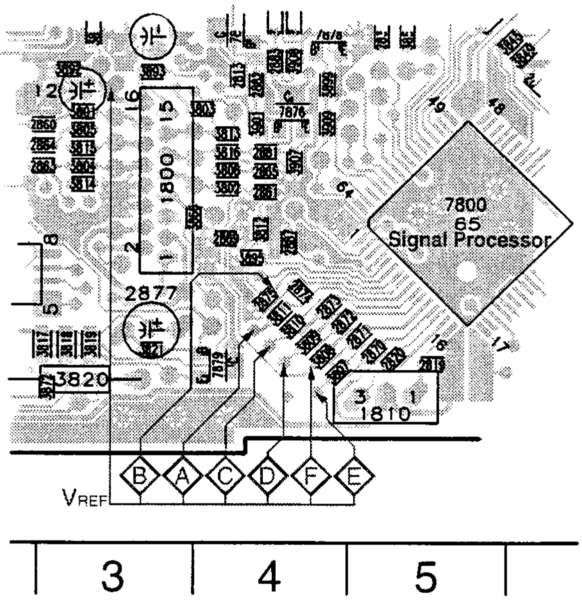
Each ADC input of the CD10 may have an offset too. Also this offset leads (together with the offsets of the CD Drive) to poor playability of some CDs (skipping tracks).

Start the **Service Test Program** - section „Focus Test“ using a CD-RW disc.

Use a DC Millivoltmeter for measurement. The offsets can be measured on capacitors near the signal processor. See drawing below.

The value should read 0mV±10mV.

CD Board side A view


7800
65
Signal Processor
1800
2877
3820
1810
7876
VREF
B
A
C
D
F
E
3
4
5

If one of the offsets is higher than ±10mV the signal processor has to be replaced.

If none of the measured offsets is higher than ±10mV - replace the part with the higher value.

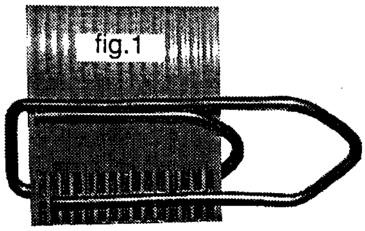
WARNING

CHARGED CAPACITORS ON THE SERVO BOARD MAY DAMAGE THE CD DRIVE ELECTRONICS WHEN CONNECTING A NEW CDM MECHANISM. THAT´S WHY, BESIDES THE SAFETY MEASURES LIKE

- ***SWITCH OFF POWER SUPPLY***
- ***ESD PROTECTION***

ADDITIONAL ACTIONS MUST BE TAKEN BY THE REPAIR TECHNICIAN.

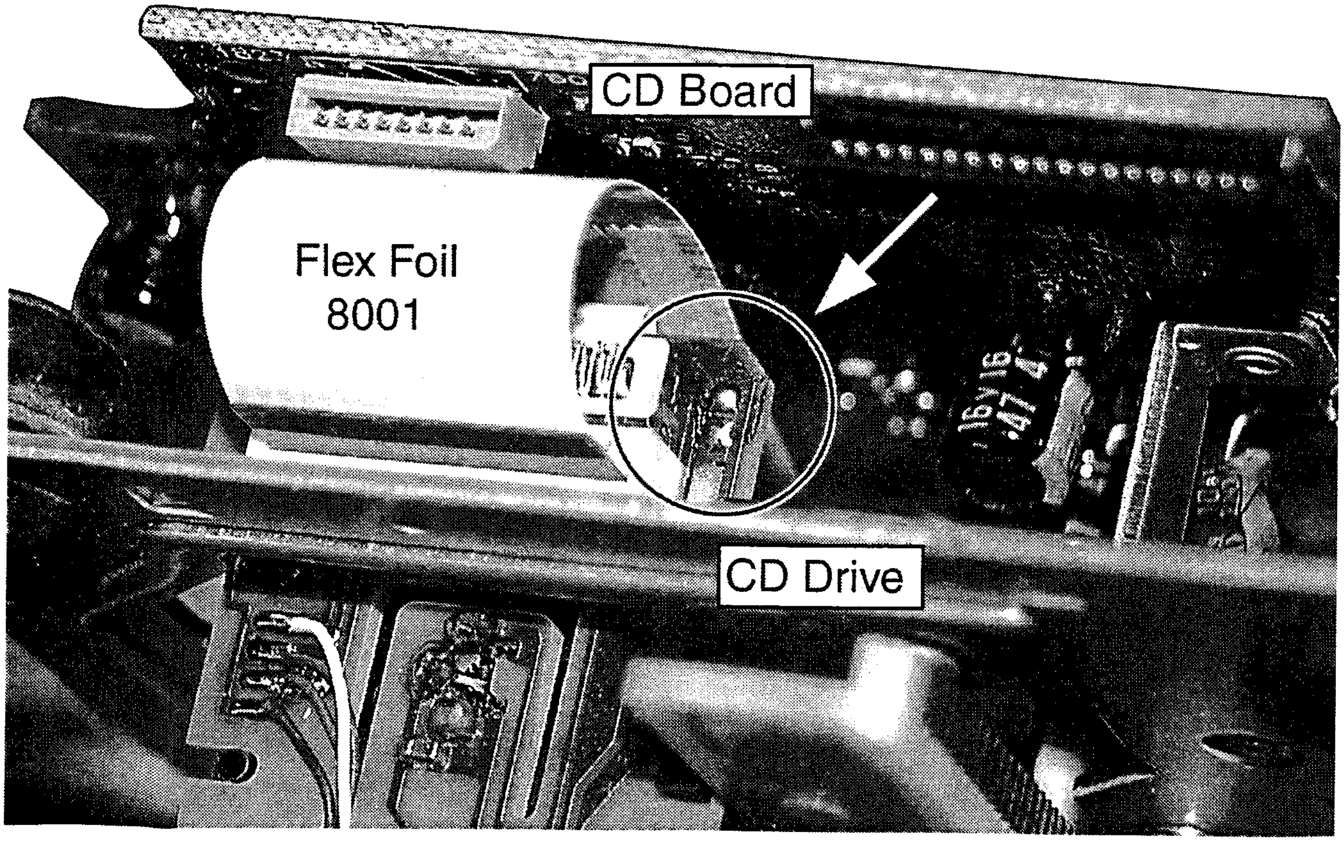
The CD drive forms a compact building block with the CD Board.



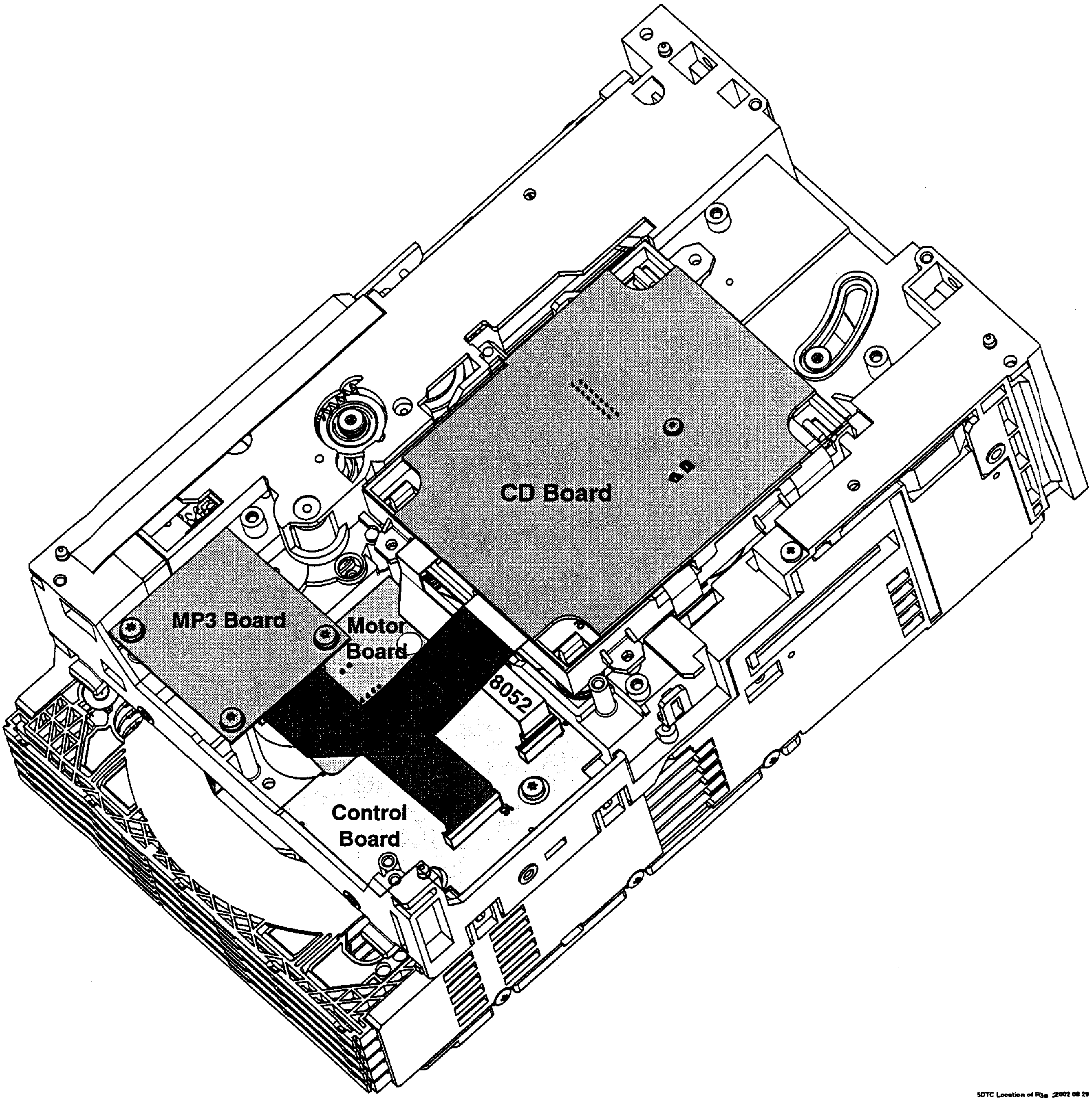
The following steps have to be done when replacing the CD mechanism:

1. Desolder disc and slide motor
2. Loosen 2x screw
1. Disconnect flexfoil from old CD drive
2. Put a paperclip over contacts of flexfoil to short-circuit the contacts (fig.1)
3. Remove old CD drive
4. Mount new CD drive to CD board
5. Solder disc and slide motor **after** fixing the drive to the board
5. Move slide outside
6. Remove paperclip from flexfoil
7. Connect flexfoil to new CD drive
8. Remove ESD-protection (solder joint) from laserunit (see picture below)

Attention: The laser diode of this CD drive is protected against ESD by a solder joint which shortcircuits the laserdiode to ground.
For proper functionality of the CD drive this solder joint must be removed **after** connection the drive to the set.

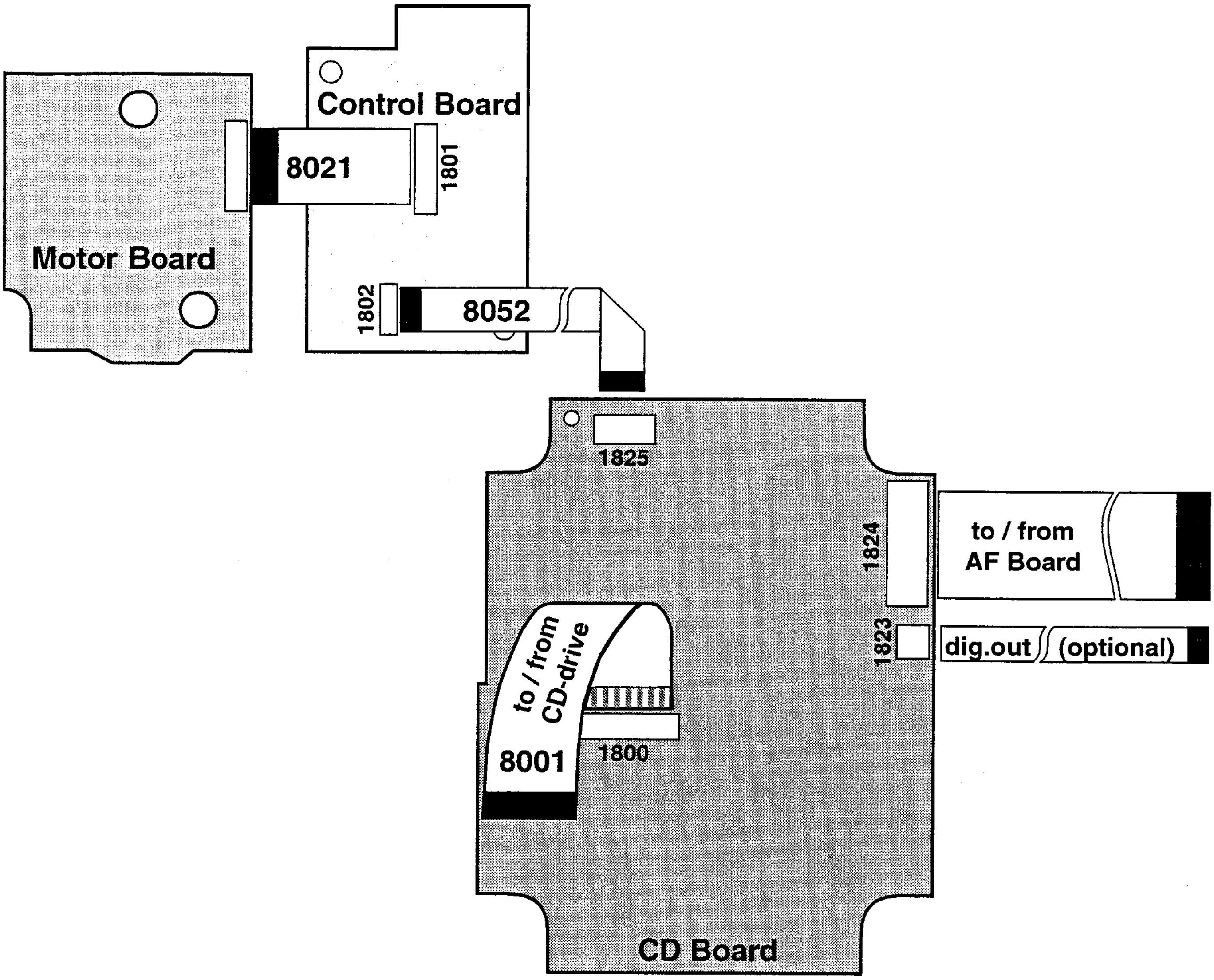


Location of Printed Circuit Boards


CD Board
MP3 Board
Motor Board
8052
Control Board
5DTC Location of PCBs 2002 08 29

MP3 Board and flexfoil cable 8051 not stuffed.

Wiring Diagram 5DTC Module


Control Board
Motor Board
8021
1801
1802
8052
1825
1824
to / from
AF Board
1823
dig.out
(optional)
to / from
CD-drive
8001
1800
CD Board

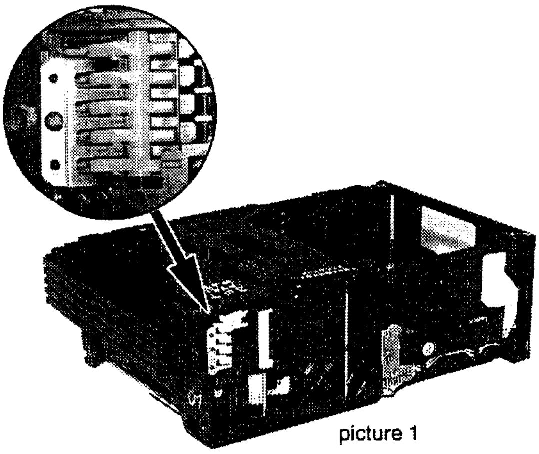
5DTC Wiring Diagram CD Version 2002 10 14

The FFC-Cables are available as sparepart.

8001	3103 308 93090	FFC CABLE 16Pin 80mm BD	Connection from CD Board to CD Drive
8052	3103 308 93120	FFC CABLE 8Pin 80mm BD	Connection from CD Board to Control Board
8021	3103 308 93110	FFC-CABLE 16Pin 60mm AD	Connection from Control Board to Motor Board

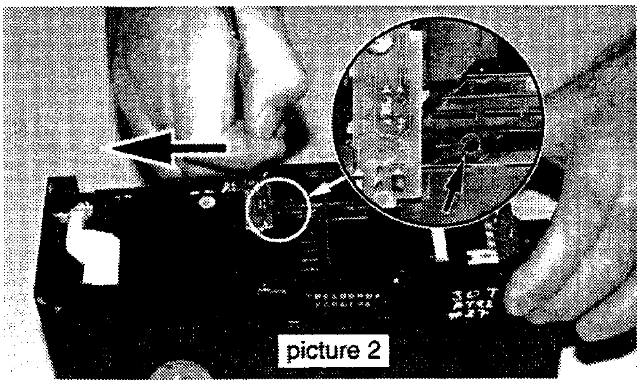
Emergency opening of the trays

The trays of the 5DTC are mechanically locked.



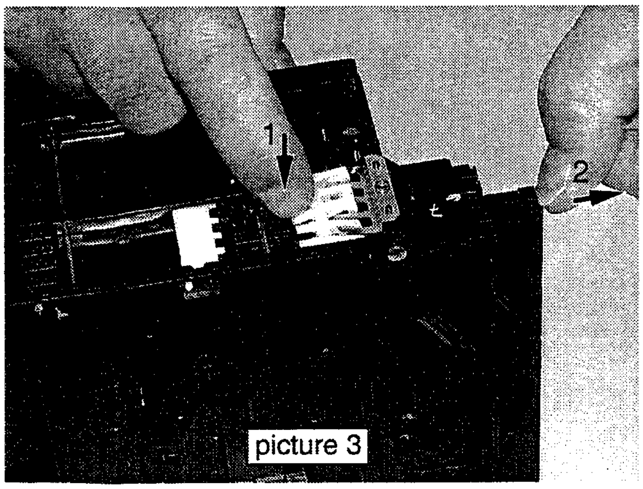
picture 1

To open tray 1, 2 and 3 move lever (pos 29) backwards (e.g. with a screwdriver - see picture 2) to its endposition.



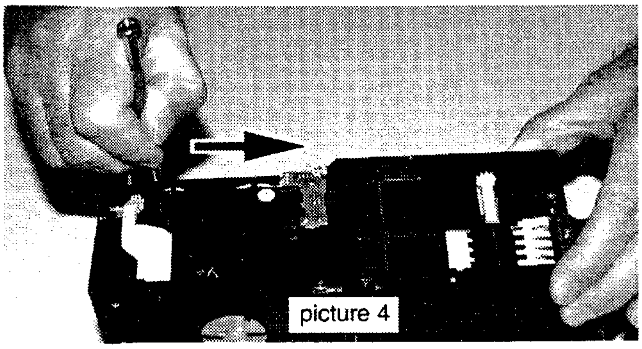
picture 2

Release the locking mechanism and pull out the tray (see picture 3).



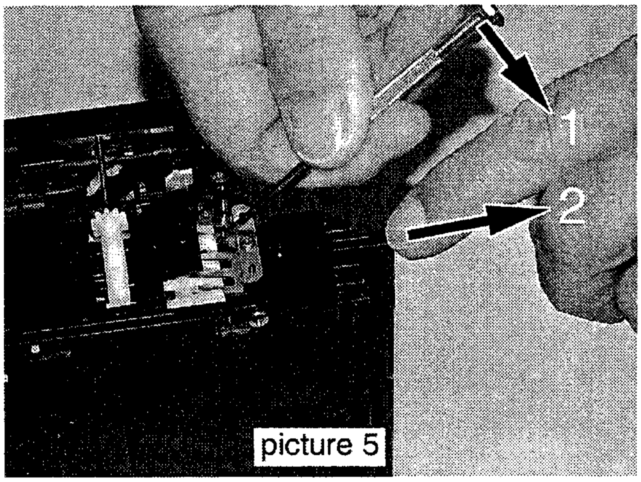
picture 3

To open tray 4 and 5 move lever (pos 29) forward to its endposition (see picture 4).



picture 4

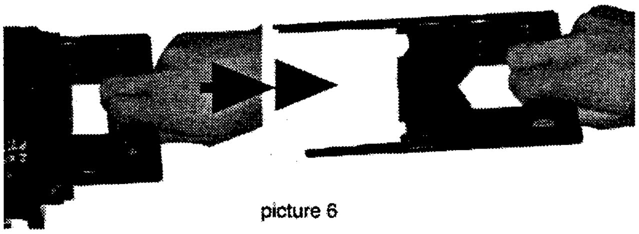
Release snap as shown in picture 5 and pull tray out.



picture 5

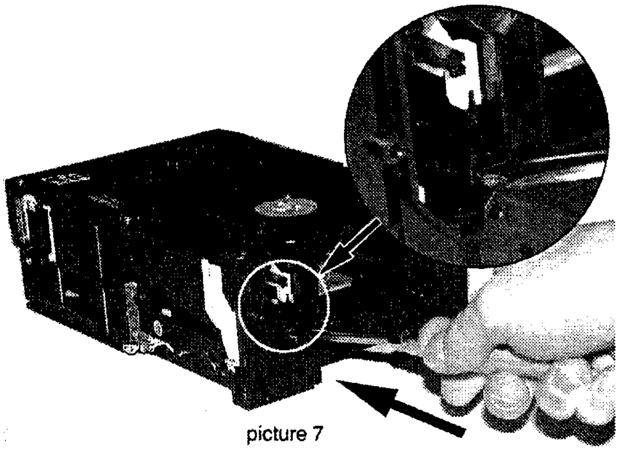
To remove a CD from Play Position perform following steps:

1. Open tray 1 as described before.
2. Tear the tray out with speed (see picture 6). The tray can be inserted aftewards without any alignment.



picture 6

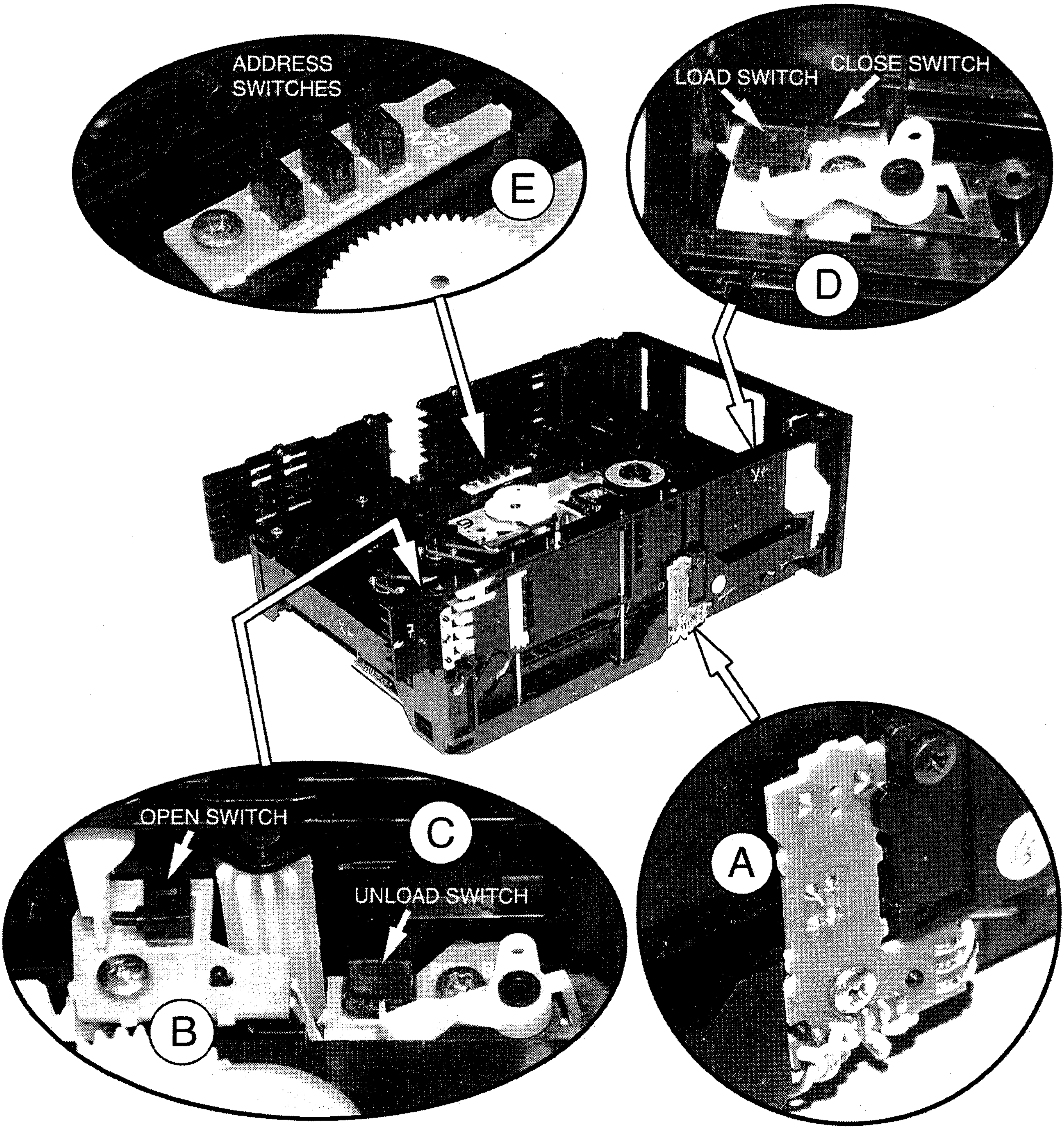
3. Move lever (pos 29) forward to its endposition (see picture 4).
4. Push lever (pos 31) forward (see picture 7).



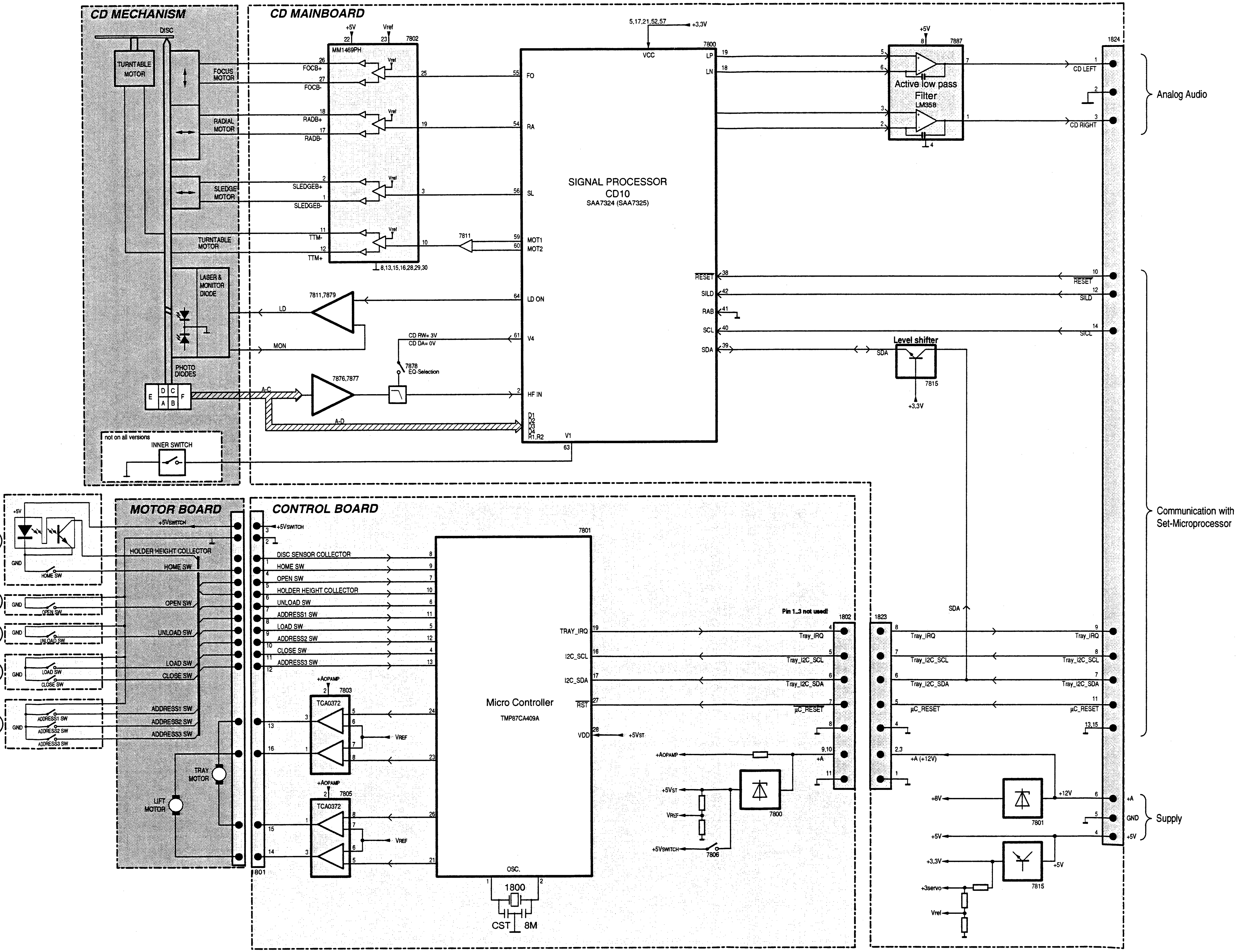
picture 7

5. Remove CD.

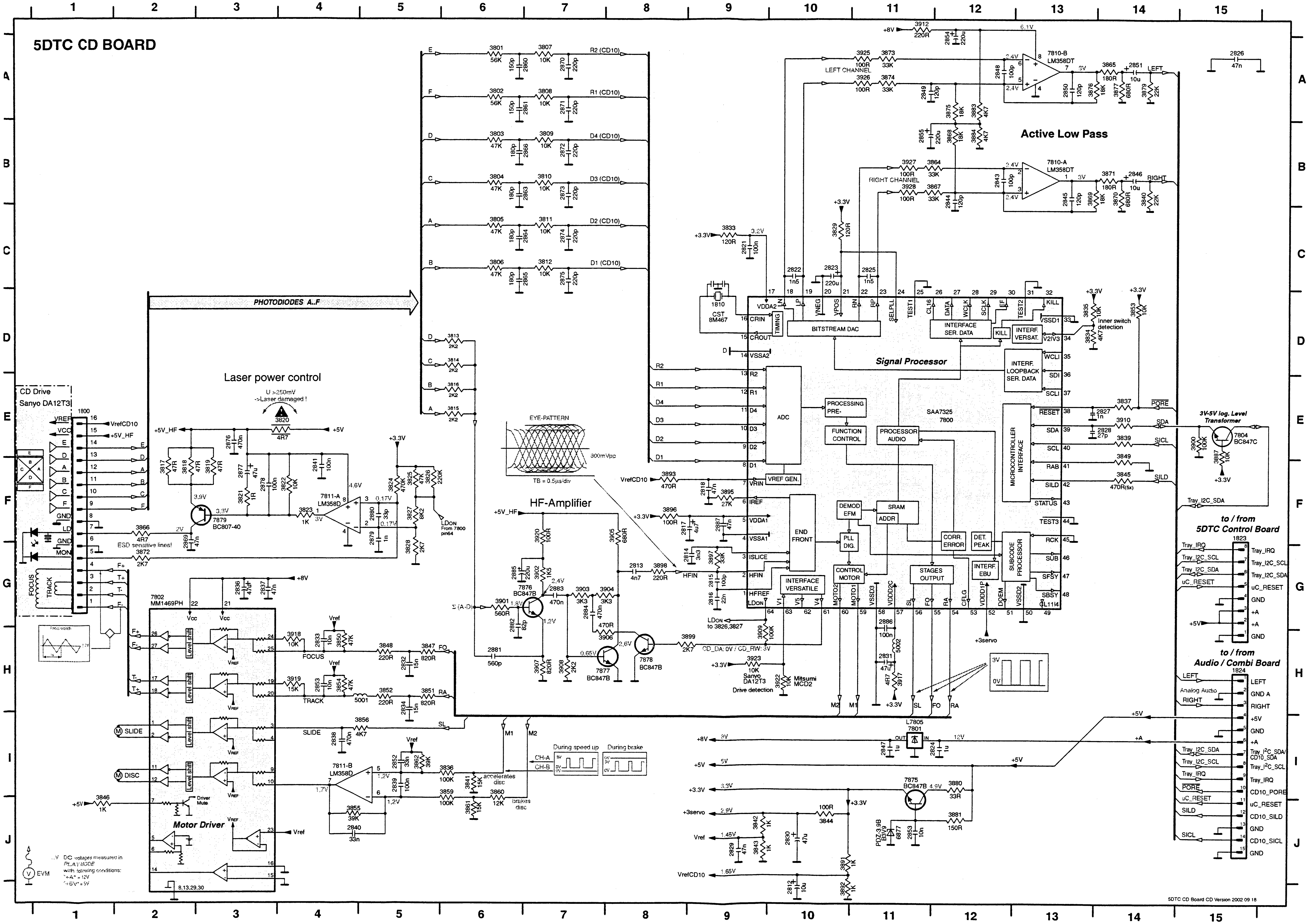
Location of switches


ADDRESS SWITCHES
E
LOAD SWITCH
CLOSE SWITCH
D
OPEN SWITCH
C
UNLOAD SWITCH
B
A

BLOCK DIAGRAM 5DTC CD Version


CD MECHANISM
DISC
TURNTABLE MOTOR
FOCUS MOTOR
RADIAL MOTOR
SLEDGE MOTOR
TURNTABLE MOTOR
LASER & MONITOR DIODE
PHOTO DIODES
not on all versions
INNER SWITCH
CD MAINBOARD
+5V
Vref
7802
MM1469PH
FOCB+
FOCB-
RADB+
RADB-
SLEDGEB+
SLEDGEB-
TTM-
TTM+
8,13,15,16,28,29,30
7811
7811,7879
LD
MON
CD RW= 3V
CD DA= 0V
7878
EQ-Selection
7876,7877
A-C
A-D
5,17,21,52,57
+3,3V
7800
VCC
FO
RA
SL
MOT1
MOT2
LD ON
V4
HF IN
D1
D2
D3
D4
R1,R2
V1
LP
LN
RESET
SILD
RAB
SCL
SDA
SIGNAL PROCESSOR
CD10
SAA7324 (SAA7325)
7887
Active low pass Filter
LM358
Level shifter
7815
1824
CD LEFT
CD RIGHT
Analog Audio
Communication with Set-Microprocessor
MOTOR BOARD
+5VSWITCH
HOLDER HEIGHT COLLECTOR
HOME SW
OPEN SW
UNLOAD SW
LOAD SW
CLOSE SW
ADDRESS1 SW
ADDRESS2 SW
ADDRESS3 SW
TRAY MOTOR
LIFT MOTOR
A
B
C
D
E
GND
CONTROL BOARD
7801
DISC SENSOR COLLECTOR
HOME SW
OPEN SW
HOLDER HEIGHT COLLECTOR
UNLOAD SW
ADDRESS1 SW
LOAD SW
ADDRESS2 SW
CLOSE SW
ADDRESS3 SW
+AOPAMP
7803
TCA0372
7805
TCA0372
VREF
Micro Controller
TMP87CA409A
TRAY_IRQ
I2C_SCL
I2C_SDA
RST
VDD
+5VST
OSC.
1800
CST 8M
1801
Pin 1..3 not used!
1802
Tray_IRQ
Tray_I2C_SCL
Tray_I2C_SDA
µC_RESET
+A
+AOPAMP
+5VST
VREF
+5VSWITCH
7806
7800
1823
+A (+12V)
+8V
+12V
7801
+5V
+3,3V
+3servo
Vref
7815
+A
GND
Supply

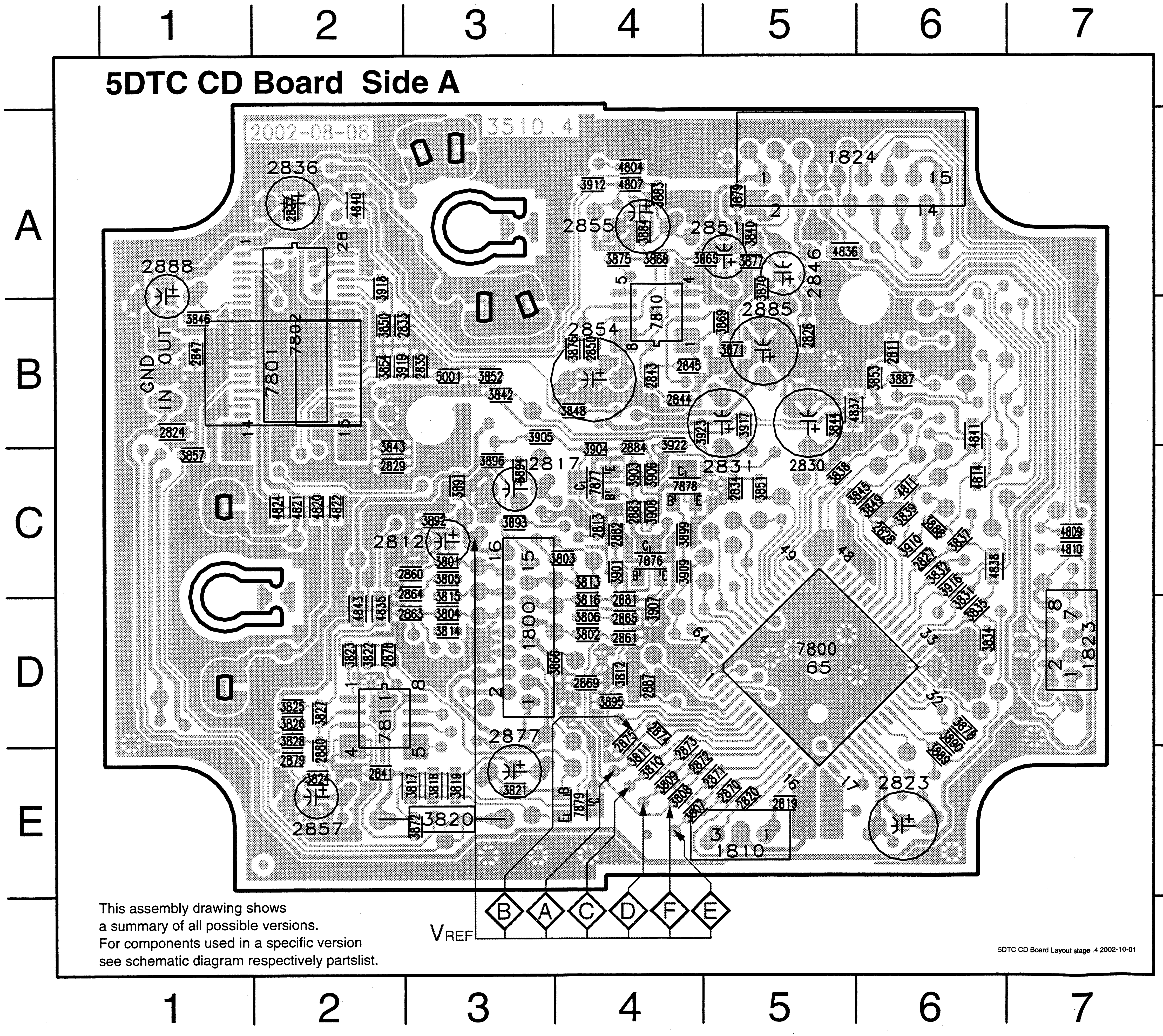
5DTC CD BOARD


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
A B C D E F G H I J
CD Drive
Sanyo DA12T3
1800
VrefCD10
+5V_HF
VREF
VCC
GND
LD
MON
FOCUS
TRACK
Laser power control
U >250mV
->Laser damaged !
3820
4R7
+5V
7879
BC807-40
7811-A
LM358D
ESD sensitive lines!
3866
4R7
3872
2K7
LDON
From 7800
pin64
PHOTODIODES A..F
R2 (CD10)
R1 (CD10)
D4 (CD10)
D3 (CD10)
D2 (CD10)
D1 (CD10)
EYE-PATTERN
300mVpp
TB = 0.5µs/div
HF-Amplifier
+5V_HF
7876
BC847B
7877
BC847B
7878
BC847B
CD_DA: 0V / CD_RW: 3V
HFIN
LDON
to 3826,3827
Sanyo
DA12T3
Drive detection
Mitsumi
MCD2
1810
CST
8M467
VDDA2
CRIN
CROUT
VSSA2
TIMING
BITSTREAM DAC
INTERFACE
SER. DATA
KILL
INTERF.
VERSAT.
Signal Processor
ADC
PROCESSING
PRE-
FUNCTION
CONTROL
PROCESSOR
AUDIO
SAA7325
7800
VREF GEN.
VRIN
IREF
VDDA1
VSSA1
ISLICE
HFIN
HFREF
END
FRONT
DEMOD
EFM
SRAM
ADDR
PLL
DIG.
CONTROL
MOTOR
INTERFACE
VERSATILE
STAGES
OUTPUT
CORR.
ERROR
DET.
PEAK
INTERF.
EBU
SUBCODE
PROCESSOR
MICROCONTROLLER
INTERFACE
INTERF.
LOOPBACK
SER. DATA
Inner switch
detection
RESET
SDA
SCL
RAB
SILD
STATUS
TEST3
RCK
SUB
SFSY
SBSY
CL11
WCLI
SDI
SCLI
V2IV3
VSSD1
PORE
SICL
3V-5V log. Level
Transformer
7804
BC847C
7810-B
LM358DT
7810-A
LM358DT
LEFT CHANNEL
RIGHT CHANNEL
Active Low Pass
LEFT
RIGHT
to / from
5DTC Control Board
1823
Tray_IRQ
Tray_I2C_SCL
Tray_I2C_SDA
uC_RESET
GND
+A
to / from
Audio / Combi Board
1824
Analog Audio
GND A
+5V
CD10_SDA
CD10_PORE
CD10_SILD
CD10_SICL
7802
MM1469PH
Level shift
Motor Driver
Driver
Mute
SLIDE
DISC
FOCUS
TRACK
7811-B
LM358D
accelerates
disc
brakes
disc
During speed up
During brake
CH-A
CH-B
M1
M2
FO
RA
SL
L7805
7801
+8V
+5V
+3.3V
+3servo
Vref
VrefCD10
7875
BC847B
PDZ-3.9B
B3V9
6877
DC voltages measured in
PLAY MODE
with following conditions:
+A = +12V
+5V = +5V
EVM
5DTC CD Board CD Version 2002 09 18

MAPPING FOR CIRCUIT DIAGRAM

1800	E1	3834	D13
1810	D9	3835	D13
1823	F15	3836	I6
1824	H15	3837	E14
2187	F9	3839	E14
2812	J10	3840	B14
2813	G8	3841	I6
2814	G9	3842	J9
2815	G9	3843	J9
2816	G9	3844	J10
2817	F9	3845	F14
2818	F9	3846	J1
2821	C9	3847	H5
2822	C10	3848	H5
2823	C10	3849	F14
2824	I12	3850	H4
2825	C11	3851	H5
2826	A15	3852	H5
2827	E13	3853	D14
2828	E13	3854	H4
2829	J9	3855	J4
2830	J10	3856	I5
2831	H11	3859	I6
2832	H5	3860	I6
2833	H4	3861	J6
2834	H5	3862	I5
2836	G3	3864	B11
2837	G3	3865	A14
2838	I4	3866	F2
2839	I5	3867	B11
2840	J4	3868	B12
2841	F4	3869	B13
2843	B12	3870	B14
2844	B12	3871	B14
2845	B13	3872	G2
2846	B14	3873	A11
2847	I11	3874	A11
2848	A12	3875	A12
2849	A11	3876	A13
2850	A13	3877	A14
2851	A14	3879	A14
2852	I5	3880	I12
2853	H4	3881	J12
2853	J11	3883	A12
2854	A12	3884	B12
2855	B11	3887	E15
2860	A6	3891	J10
2861	A6	3892	J10
2863	B6	3893	F8
2864	C6	3895	F9
2865	C6	3896	F8
2866	B6	3897	G9
2869	F2	3898	G8
2870	A7	3899	H8
2871	A7	3900	E15
2872	B7	3901	G6
2873	B7	3902	G7
2874	C7	3903	G7
2875	C7	3904	G8
2876	E3	3905	F8
2877	F3	3906	H8
2878	F3	3907	H7
2879	F5	3908	H7
2880	F5	3909	H9
2881	H6	3910	E14
2882	G6	3912	A11
2884	G7	3917	H11
2885	G6	3918	H4
2886	G11	3919	H4
2893	G7	3920	F7
3801	A6	3922	H10
3802	A6	3923	H9
3803	B6	3925	A11
3804	B6	3926	A11
3805	C6	3927	B11
3806	C6	3928	B11
3807	A7	5001	H5
3808	A7	5002	H11
3809	B7	6877	J11
3810	B7	7800	D11
3811	C7	7801	I11
3812	C7	7802	G2
3813	D6	7804	E15
3814	D6	7810-A	B13
3815	E6	7810-B	A13
3816	E6	7811-A	F4
3817	F2	7811-B	I4
3818	F2	7875	I11
3819	F3	7876	G7
3820	E4	7877	H8
3821	F3	7878	H8
3822	F4	7879	F3
3823	F4		
3824	F5		
3825	F5		
3826	F5		
3827	F5		
3828	G5		
3829	C10		
3833	C9		

5DTC CD Board Side A



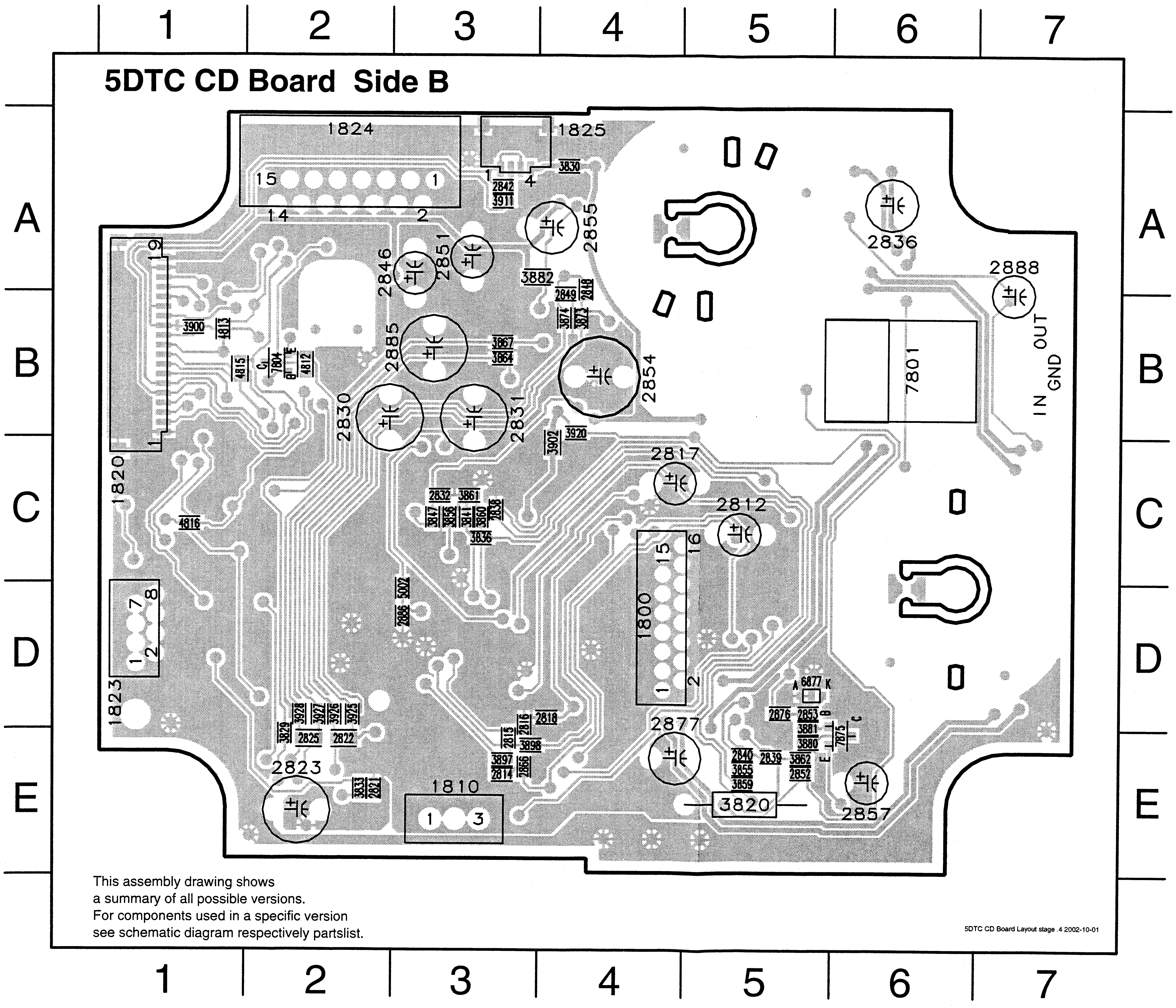
This assembly drawing shows
a summary of all possible versions.
For components used in a specific version
see schematic diagram respectively partslist.

5DTC CD Board Layout stage .4 2002-10-01

MAPPING FOR COMPONENT LAYOUT

1800	D3	3851	C5
1810	E5	3852	B3
1823	D7	3853	B6
1824	A5	3854	B2
2811	B6	3857	C1
2812	C3	3865	A4
2813	C4	3866	D3
2817	C3	3868	A4
2819	E5	3869	B5
2820	E5	3870	A5
2823	E6	3871	B5
2824	B1	3872	E3
2826	B5	3875	A4
2827	C6	3876	B4
2828	C6	3877	A5
2829	C2	3878	D6
2830	B5	3879	A5
2831	B5	3883	A4
2833	B2	3884	A4
2834	C5	3887	B6
2835	B3	3888	C6
2836	A2	3889	E6
2837	A2	3890	E6
2841	E2	3891	C3
2843	B4	3892	C3
2844	B4	3893	C3
2845	B4	3894	C3
2846	A5	3895	D4
2847	B1	3896	C3
2850	B4	3899	C4
2851	A5	3901	C4
2854	B4	3903	C4
2855	A4	3904	C4
2857	E2	3905	B3
2860	C3	3906	C4
2861	D4	3907	D4
2863	D3	3908	C4
2864	D3	3909	C4
2865	D4	3910	C6
2869	D4	3912	A4
2870	E5	3916	C6
2871	E5	3917	B5
2872	E4	3918	A2
2873	E4	3919	B2
2874	D4	3922	C4
2875	E4	3923	B4
2877	D3	4804	A4
2878	D2	4807	A4
2879	E2	4809	C7
2880	E2	4810	C7
2881	D4	4811	C6
2882	C4	4814	C6
2883	C4	4820	C2
2884	C4	4821	C2
2885	B5	4822	C2
2887	D4	4824	C2
2888	A1	4835	D2
3801	C3	4836	A5
3802	D4	4837	B5
3803	C4	4838	C6
3804	D3	4840	A2
3805	C3	4841	B6
3806	D4	4843	D2
3807	E4	5001	B3
3808	E4	7800	C6
3809	E4	7801	B2
3810	E4	7802	B2
3811	E4	7810	B4
3812	D4	7811	D2
3813	C4	7876	C4
3814	D3	7877	C4
3815	D3	7878	C4
3816	D4	7879	E4
3817	E3		
3818	E3		
3819	E3		
3820	E3		
3821	E3		
3822	D2		
3823	D2		
3824	E2		
3825	D2		
3826	D2		
3827	D2		
3828	D2		
3831	D6		
3832	C6		
3834	D6		
3835	D6		
3837	C6		
3838	C5		
3839	C6		
3840	A5		
3842	B3		
3843	C2		
3844	B5		
3845	C6		
3846	B1		
3848	B4		
3849	C6		
3850	B2		

5DTC CD Board Side B

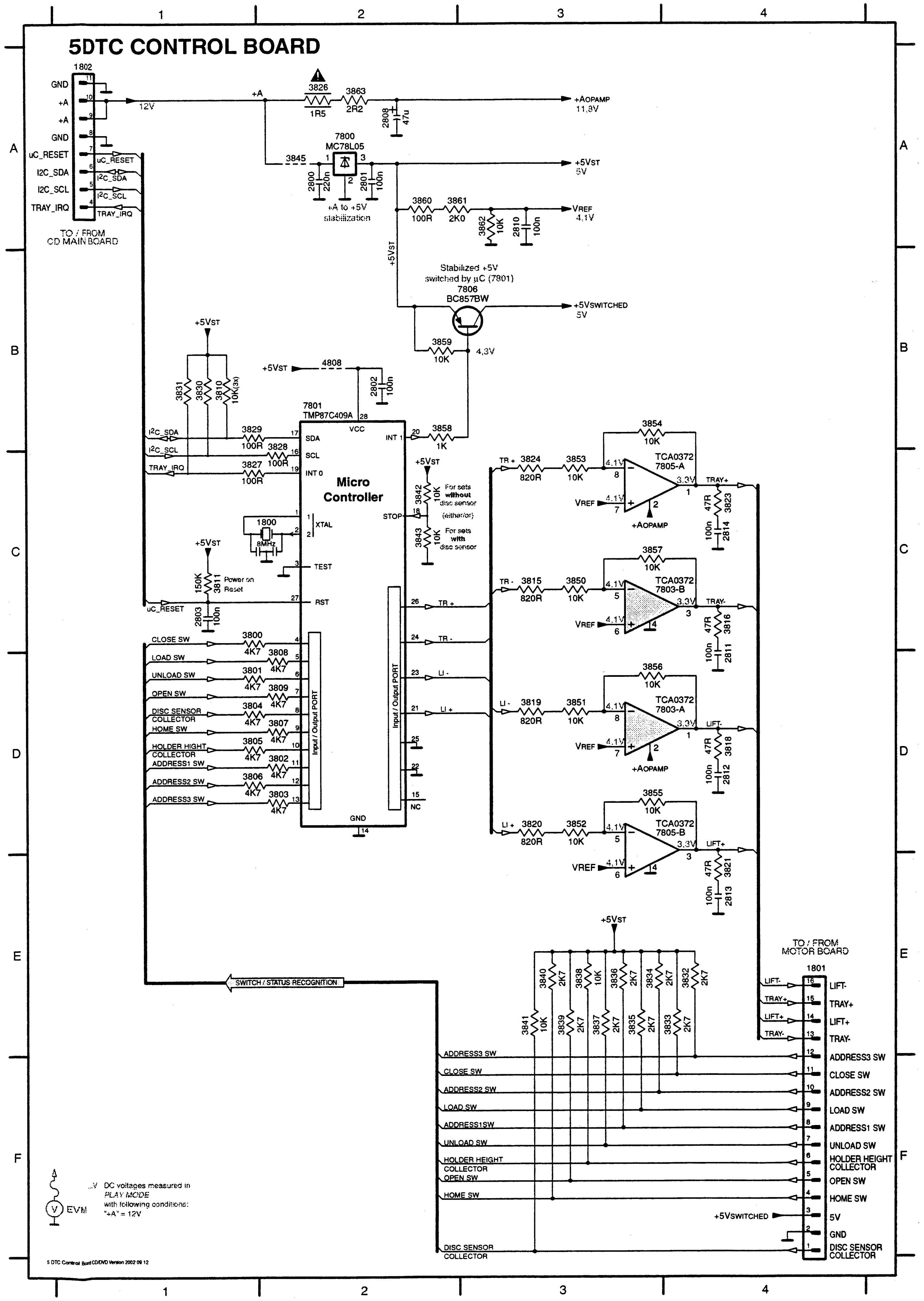

1
2
3
4
5
6
7
A
B
C
D
E
1824
15
1
14
2
1825
1
4
3830
2842
3911
2855
2846
2851
2836
2888
3882
2849
2848
3874
3873
1820
19
3900
4813
4815
7804
4812
2885
3867
3864
2854
7801
IN
GND
OUT
2830
2831
3902
3920
2817
2812
2832
3861
3847
3856
3841
3860
2838
3836
4816
1800
15
16
1
2
5002
2886
1823
7
8
1
2
3829
3928
3927
3926
3925
2825
2822
2815
2816
2818
3898
3897
2814
2866
2877
6877
A
K
2876
2853
3881
3880
7875
2840
3855
3859
2839
3862
2852
2823
3833
2821
1810
1
3
3820
2857

This assembly drawing shows
a summary of all possible versions.
For components used in a specific version
see schematic diagram respectively partslist.

5DTC CD Board Layout stage .4 2002-10-01

1800	D5
1810	E3
1820	C1
1823	D1
1824	A3
1825	A4
2812	C5
2814	E4
2815	E4
2816	D4
2817	C5
2818	D4
2821	E3
2822	E3
2823	E2
2825	E2
2830	B2
2831	B4
2832	C3
2836	A6
2838	C4
2839	E5
2840	E5
2842	A4
2846	A3
2848	A4
2849	B4
2851	A3
2852	E6
2853	D6
2854	B5
2855	A4
2857	E6
2866	E4
2876	D5
2877	D5
2885	B3
2886	D3
2888	A7
3820	E5
3829	E2
3830	A4
3833	E3
3836	C3
3841	C3
3847	C3
3855	E5
3856	C3
3859	E5
3860	C3
3861	C3
3862	E6
3864	B4
3867	B4
3873	B4
3874	B4
3880	E6
3881	D6
3882	A4
3897	E4
3898	E4
3900	B1
3902	C4
3911	A4
3920	B4
3925	D3
3926	D2
3927	D2
3928	D2
4812	B2
4813	B2
4815	B2
4816	C1
5002	D3
6877	D6
7801	B6
7804	B2
7875	E6

5DTC CONTROL BOARD


1802
GND
+A
+A
GND
uC_RESET
I2C_SDA
I2C_SCL
TRAY_IRQ
TO / FROM CD MAIN BOARD
12V
+A
3826 1R5
3863 2R2
2808 47u
+AOPAMP 11,3V
7800 MC78L05
3845
2800 220n
2801 100n
+A to +5V stabilization
+5VST 5V
3860 100R
3861 2K0
3862 10K
2810 100n
VREF 4,1V
Stabilized +5V switched by µC (7801)
7806 BC857BW
+5VSWITCHED 5V
3859 10K
4,3V
4808
2802 100n
3831
3830
3810 10K(3x)
7801 TMP87C409A
Micro Controller
1800 8MHz
XTAL
TEST
RST
3811 150K
Power on Reset
2803 100n
3829 100R
3828 100R
3827 100R
3858 1K
3842 10K
For sets without disc sensor (either/or)
3843 10K
For sets with disc sensor
Input / Output PORT
CLOSE SW
LOAD SW
UNLOAD SW
OPEN SW
DISC SENSOR COLLECTOR
HOME SW
HOLDER HIGHT COLLECTOR
ADDRESS1 SW
ADDRESS2 SW
ADDRESS3 SW
3800 4K7
3808 4K7
3801 4K7
3809 4K7
3804 4K7
3807 4K7
3805 4K7
3802 4K7
3806 4K7
3803 4K7
TR+
TR-
LI-
LI+
3824 820R
3853 10K
3854 10K
TCA0372 7805-A
3815 820R
3850 10K
3857 10K
TCA0372 7803-B
3819 820R
3851 10K
3856 10K
TCA0372 7803-A
3820 820R
3852 10K
3855 10K
TCA0372 7805-B
VREF 4,1V
+AOPAMP
3,3V
TRAY+
TRAY-
LIFT-
LIFT+
3823 47R
2814 100n
3816 47R
2811 100n
3818 47R
2812 100n
3821 47R
2813 100n
SWITCH / STATUS RECOGNITION
+5VST
3840 2K7
3838 10K
3836 2K7
3834 2K7
3832 2K7
3841 10K
3839 2K7
3837 2K7
3835 2K7
3833 2K7
TO / FROM MOTOR BOARD
1801
LIFT-
TRAY+
LIFT+
TRAY-
ADDRESS3 SW
CLOSE SW
ADDRESS2 SW
LOAD SW
ADDRESS1 SW
UNLOAD SW
HOLDER HEIGHT COLLECTOR
OPEN SW
HOME SW
+5VSWITCHED
5V
GND
DISC SENSOR COLLECTOR
...V DC voltages measured in PLAY MODE with following conditions: "+A" = 12V
EVM
5 DTC Control Board CD/DVD Version 2002 09 12

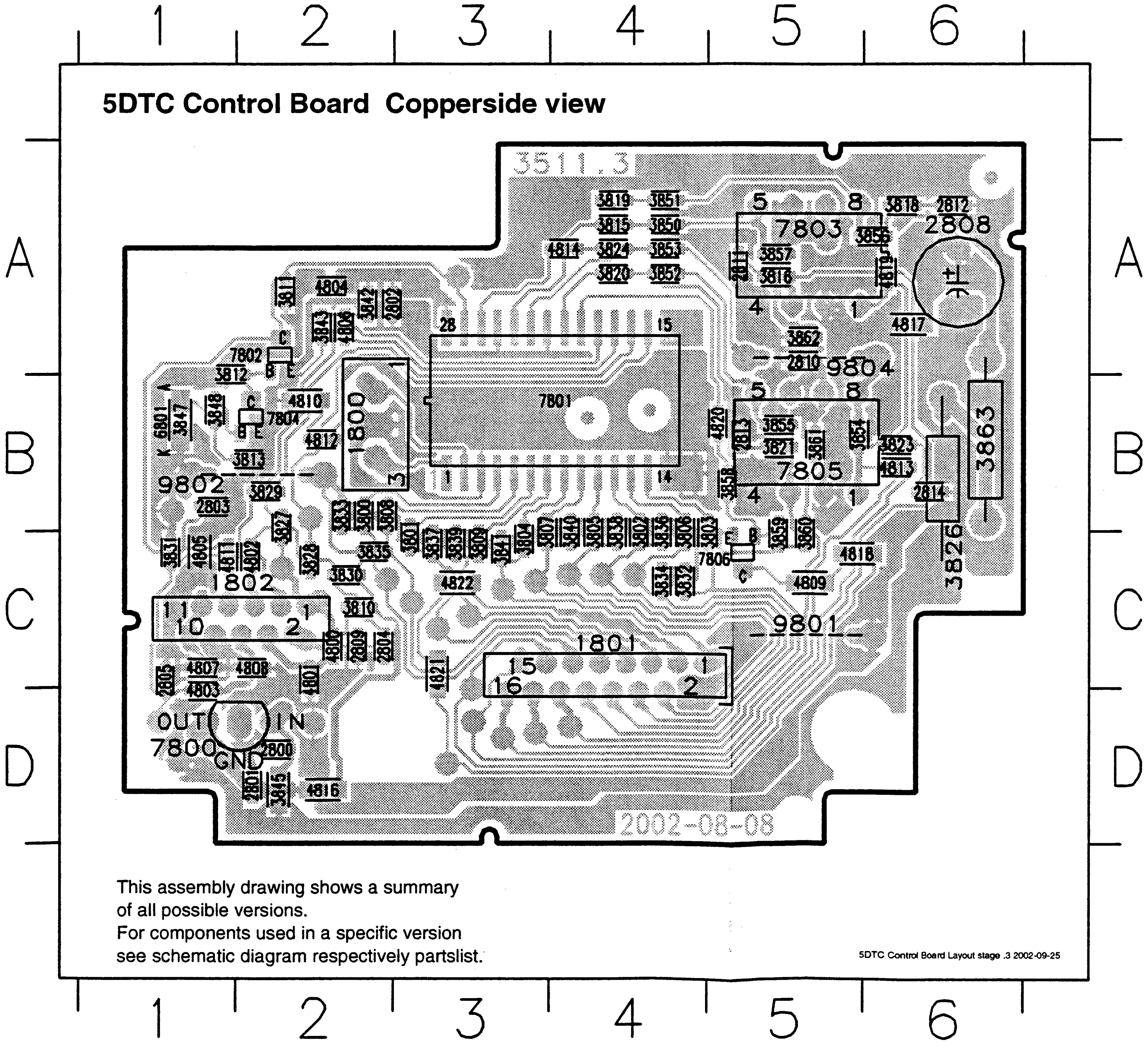
MAPPING FOR CIRCUIT DIAGRAM

1800	C2	2810	A3	3804	D1	3811	C1	3824	C3	3833	E4	3841	E3	3854	B3	3862	A3	7805-B	D3
1801	E4	2811	D4	3805	D1	3815	C3	3826	A2	3834	E3	3842	C2	3855	D3	3863	A2	7806	B3
1802	A1	2812	D4	3806	D1	3816	C4	3827	C1	3835	E3	3843	C2	3856	D3	4808	B2		
2800	A2	2813	E4	3807	D2	3818	D4	3828	C2	3836	E3	3845	A2	3857	C3	7800	A2		
2801	A2	2814	C4	3808	D1	3819	D3	3829	B1	3837	E3	3850	C3	3858	B2	7801	B2		
2802	B2	3800	C1	3808	D2	3820	D3	3830	B1	3838	E3	3851	D3	3859	B3	7803-A	D3		
2803	C1	3802	D2	3809	D2	3821	E4	3831	B1	3839	E3	3852	D3	3860	A2	7803-B	C3		
2808	A2	3803	D2	3810	B1	3823	C4	3832	E4	3840	E3	3853	C3	3861	A2	7805-A	C3		

MAPPING FOR COMPONENT LAYOUT

1800	B2	2810	A5	3806	C4	3819	A4	3832	C4	3843	A2	3857	A5	4804	A2	4816	D2	7803	A5
1801	C4	2811	A5	3807	C3	3820	A4	3833	B2	3845	D2	3858	B5	4805	C1	4817	A6	7804	B2
1802	C2	2812	A6	3808	B2	3821	B5	3834	C4	3847	B1	3859	C5	4806	A2	4818	C5	7806	C5
2800	D2	2813	B5	3809	C3	3823	B6	3835	C2	3848	B1	3860	C5	4807	C1	4819	A6	9801	C5
2801	D2	2814	B6	3810	C2	3824	A4	3836	C4	3850	A4	3861	B5	4808	C2	4820	B5	9802	B2
2802	A2	3800	B2	3811	A2	3826	B6	3837	C3	3851	A4	3862	A5	4809	C5	4821	C3	9804	A5
2803	B1	3801	C3	3812	A1	3827	B2	3838	C4	3852	A4	3863	B6	4810	B2	4822	C3		
2804	C2	3802	C4	3813	B2	3828	C2	3839	C3	3853	A4	4800	C2	4811	C1	6801	B1		
2805	C1	3803	C4	3815	A4	3829	B2	3840	C4	3854	B5	4801	C2	4812	B2	7800	D2		
2808	A6	3804	C3	3816	A5	3830	C2	3841	C3	3855	B5	4802	C2	4813	B6	7801	B4		
2809	C2	3805	C4	3818	A6	3831	C1	3842	A2	3856	A6	4803	D1	4814	A4	7802	A2		

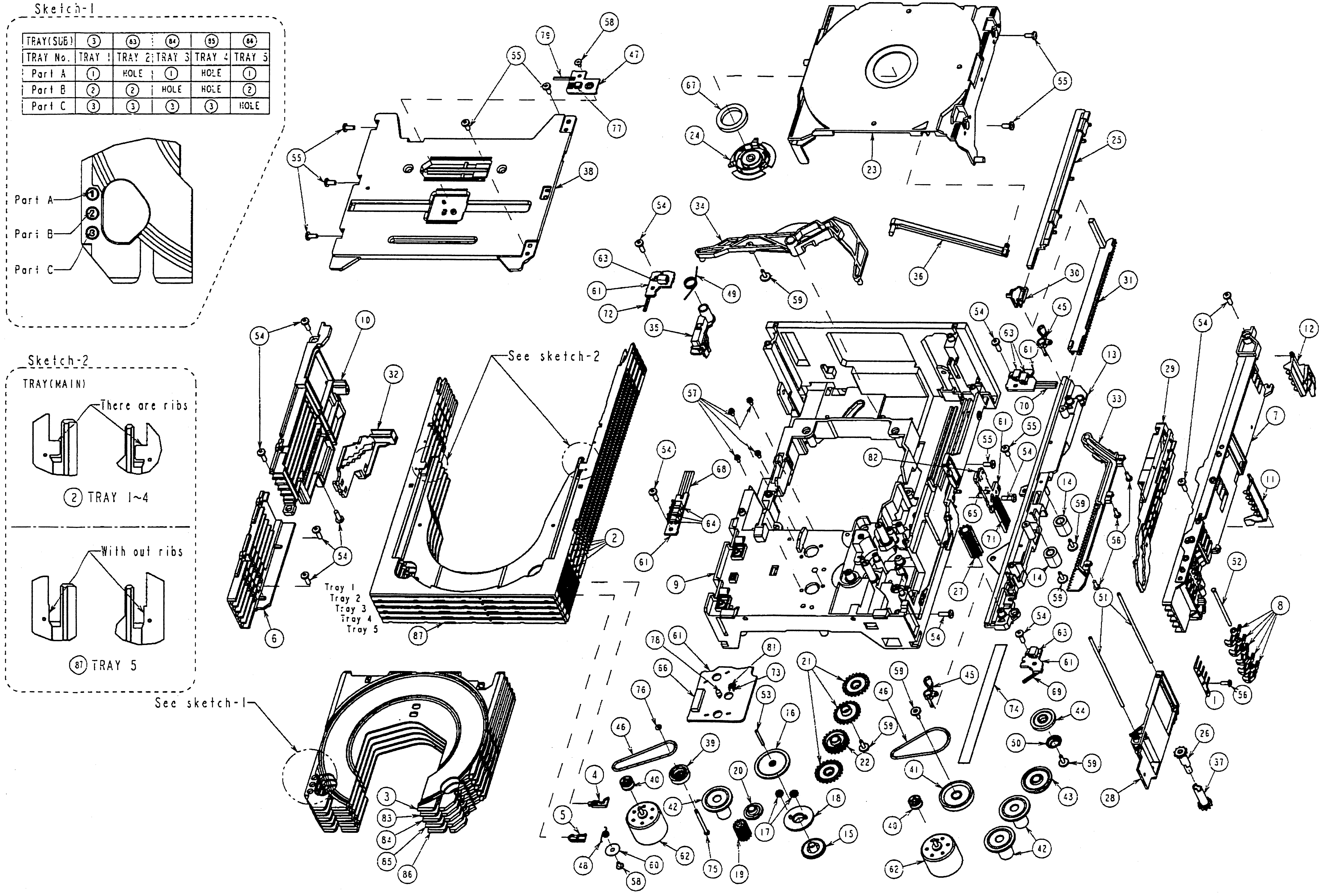
5DTC Control Board Copperside view


1
2
3
4
5
6
A
B
C
D
3511.3
2002-08-08
7803
7805
7801
1800
1801
1802
7800
OUT
IN
GND
9801
9802
9804
7802
7804
7806
6801
2808
3863
3826
4814
4817
4818
4809
4821
4822
4816

This assembly drawing shows a summary
of all possible versions.
For components used in a specific version
see schematic diagram respectively partslist.

5DTC Control Board Layout stage .3 2002-09-25

Exploded view 5DTC mechanic - for orientation only



Sketch-1

TRAY(SUB)	③	(83)	(84)	(85)	(86)
TRAY No.	TRAY 1	TRAY 2	TRAY 3	TRAY 4	TRAY 5
Part A	①	HOLE	①	HOLE	①
Part B	②	②	HOLE	HOLE	②
Part C	③	③	③	③	HOLE

Part A
Part B
Part C
①
②
③
Sketch-2
TRAY(MAIN)
There are ribs
② TRAY 1~4
With out ribs
(87) TRAY 5
See sketch-2
See sketch-1
Tray 1
Tray 2
Tray 3
Tray 4
Tray 5
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ELECTRICAL PARTSLIST 5DTC MODULE Basic Version CD Board

MECHANICAL PARTS

	3103 308 54710	**5DTC Module** (mechanic w/o electronic)
0201	3103 309 05390	CD DRIVE DA12T3
0252	4822 529 10387	Rubber damper CD drive, front
0253	4822 529 10386	Rubber damper CD drive, rear

MISCELLANEOUS

1800	4822 267 11028	FFC-CONNECTOR, 16P, side entry
1823	2422 025 16371	FFC-CONNECTOR 8P, side entry
1824	4822 265 10979	FFC-CONNECTOR, 15P, side entry
8001	3103 308 93090	FFC CABLE 16Pin 80mm BD
8052	3103 308 93120	FFC CABLE 8Pin 80mm BD

CAPACITORS

2812	4822 124 11947	10µF	20%	16V
2813©	4822 126 13193	4,7nF	10%	63V
2814©	5322 126 11579	3,3nF	10%	63V
2815©	2020 552 94427	100pF	5%	50V
2816©	3198 017 42230	22nF	10%	50V
2817	4822 124 22726	4,7µF	20%	35V
2818©	3198 024 44730	47nF	5%	50V
2821©	2238 586 59812	100nF	10%	50V
2822©	4822 126 13344	1,5nF	5%	63V
2823	4822 124 42383	220µF	20%	4V
2824©	4822 126 14043	1µF	20%	16V
2825©	4822 126 13344	1,5nF	5%	63V
2826©	3198 017 34730	47nF	10%	16V
2827©	5322 126 11578	1nF	10%	63V
2828©	4822 126 11669	27pF	10%	50V
2829©	3198 017 34730	47nF	10%	16V
2830	4822 124 81286	47µF	20%	16V
2831	4822 124 81286	47µF	20%	16V
2832©	3198 017 31530	15nF	10%	50V
2833©	5322 126 11583	10nF	10%	63V
2834©	3198 017 31530	15nF	10%	50V
2835©	5322 126 11583	10nF	10%	63V
2836	4822 124 40433	47µF	20%	25V
2837©	3198 017 34730	47nF	10%	16V
2838©	3198 017 44740	470nF	20%	10V
2839©	2238 586 59812	100nF	10%	50V
2840©	4822 126 14549	33nF	10%	16V
2841©	2238 586 59812	100nF	10%	50V
2843©	2020 552 94427	100pF	5%	50V
2844©	5322 122 33861	120pF	5%	NP0
2845©	5322 122 33861	120pF	5%	NP0
2846	4822 124 40248	10µF	20%	63V
2847©	3198 017 41050	1µF	20%	10V
2848©	2020 552 94427	100pF	5%	50V
2849©	5322 122 33861	120pF	5%	NP0
2850©	5322 122 33861	120pF	5%	NP0
2851	4822 124 40248	10µF	20%	63V
2852©	4822 126 14549	33nF	10%	16V
2853©	5322 126 11583	10nF	10%	63V
2854	4822 124 12245	220µF	20%	16V
2855	4822 124 11912	220µF	20%	6,3V
2860©	4822 122 33753	150pF	5%	50V
2861©	4822 122 33753	150pF	5%	50V
2863©	4822 126 14508	180pF	5%	50V
2864©	4822 126 14508	180pF	5%	50V
2865©	4822 126 14508	180pF	5%	50V
2866©	4822 126 14508	180pF	5%	50V
2869©	3198 017 34730	47nF	10%	16V
2870©	4822 126 13883	220pF	5%	50V
2871©	4822 126 13883	220pF	5%	50V

CAPACITORS

2872©	4822 126 13883	220pF	5%	50V
2873©	4822 126 13883	220pF	5%	50V
2874©	4822 126 13883	220pF	5%	50V
2875©	4822 126 13883	220pF	5%	50V
2876©	3198 017 44740	470nF	20%	10V
2877	4822 124 40433	47µF	20%	25V
2878©	2238 586 59812	100nF	10%	50V
2879©	5322 126 11578	1nF	10%	63V
2880©	2222 867 15339	33pF	5%	50V
2881©	4822 126 14249	560pF	10%	50V
2882©	4822 126 14226	82pF		50V
2883©	3198 017 44740	470nF	20%	10V
2884©	3198 017 44740	470nF	20%	10V
2885	4822 124 40196	220µF	20%	16V
2886©	2238 586 59812	100nF	10%	50V
2887©	3198 017 34730	47nF	10%	16V

RESISTORS

3801©	4822 051 30563	56kΩ	5%	0,06W
3802©	4822 051 30563	56kΩ	5%	0,06W
3803©	4822 117 12925	47kΩ	1%	0,06W
3804©	4822 117 12925	47kΩ	1%	0,06W
3805©	4822 117 12925	47kΩ	1%	0,06W
3806©	4822 117 12925	47kΩ	1%	0,06W
3807©	4822 051 30103	10kΩ	5%	0,06W
3808©	4822 051 30103	10kΩ	5%	0,06W
3809©	4822 051 30103	10kΩ	5%	0,06W
3810©	4822 051 30103	10kΩ	5%	0,06W
3811©	4822 051 30103	10kΩ	5%	0,06W
3812©	4822 051 30103	10kΩ	5%	0,06W
3813©	4822 051 30222	2,2kΩ	5%	0,06W
3814©	4822 051 30222	2,2kΩ	5%	0,06W
3815©	4822 051 30222	2,2kΩ	5%	0,06W
3816©	4822 051 30222	2,2kΩ	5%	0,06W
3817©	4822 051 30479	47Ω	5%	0,06W
3818©	4822 051 30479	47Ω	5%	0,06W
3819©	4822 051 30479	47Ω	5%	0,06W
3820	4822 052 10478	4,7Ω	5%	NFR25
3821©	4822 117 12917	1Ω	5%	0,06W
3822©	4822 051 30103	10kΩ	5%	0,06W
3823©	4822 051 30102	1kΩ	5%	0,06W
3824©	4822 051 30474	470kΩ	5%	0,06W
3825©	5322 117 13029	47kΩ	1%	0,06W
3826©	4822 117 12891	220kΩ	1%	0,06W
3827©	5322 117 13056	8,2kΩ	1%	0,06W
3828©	5322 117 13052	2,7kΩ	1%	0.06W
3829©	4822 051 30121	120Ω	5%	0,06W
3831©	4822 051 30471	470Ω	5%	0,06W
3832©	4822 051 30471	470Ω	5%	0,06W
3833©	4822 051 30121	120Ω	5%	0,06W
3834©	4822 051 30472	4,7kΩ	5%	0,06W
3836©	4822 117 13632	100kΩ	1%	0,06W
3837©	4822 051 30471	470Ω	5%	0,06W
3839©	4822 051 30471	470Ω	5%	0,06W
3840©	4822 051 30223	22kΩ	5%	0,06W
3841©	4822 051 30153	15kΩ	5%	0,06W
3842©	4822 051 30102	1kΩ	5%	0,06W
3843©	4822 051 30102	1kΩ	5%	0,06W
3844©	4822 051 30101	100Ω	5%	0,06W
3845©	4822 051 30471	470Ω	5%	0,06W
3846©	4822 051 30102	1kΩ	5%	0,06W
3847©	4822 117 12968	820Ω	5%	0,06W

ELECTRICAL PARTSLIST 5DTC MODULE Basic Version CD Board

RESISTORS

3848 ©	4822 051 30221	220Ω	5%	0,06W
3849 ©	4822 051 30471	470Ω	5%	0,06W
3850 ©	4822 117 12925	47kΩ	1%	0,06W
3851 ©	4822 117 12968	820Ω	5%	0,06W
3852 ©	4822 051 30221	220Ω	5%	0,06W
3853 ©	4822 051 30103	10kΩ	5%	0,06W
3854 ©	4822 117 12925	47kΩ	1%	0,06W
3855 ©	4822 051 30393	39kΩ	5%	0,06W
3856 ©	4822 051 30472	4,7kΩ	5%	0,06W
3857 ©	4822 051 30008	CHIP JUMPER 0603		
3858 ©	4822 117 12903	1,8kΩ	1%	0,06W
3859 ©	4822 117 13632	100kΩ	1%	0,06W
3860 ©	4822 051 30123	12kΩ	5%	0,06W
3861 ©	4822 051 30153	15kΩ	5%	0,06W
3862 ©	4822 051 30393	39kΩ	5%	0,06W
3864 ©	4822 051 30333	33kΩ	5%	0,06W
3865 ©	4822 051 30181	180Ω	5%	0,06W
3866 ©	4822 117 13608	4,7Ω	5%	0,06W
3867 ©	4822 051 30333	33kΩ	5%	0,06W
3868 ©	4822 051 30183	18kΩ	5%	0,06W
3869 ©	4822 051 30183	18kΩ	5%	0,06W
3870 ©	4822 051 30681	680Ω	5%	0,06W
3871 ©	4822 051 30181	180Ω	5%	0,06W
3872 ©	4822 051 30272	2,7kΩ	5%	0,06W
3873 ©	4822 051 30333	33kΩ	5%	0,06W
3874 ©	4822 051 30333	33kΩ	5%	0,06W
3875 ©	4822 051 30183	18kΩ	5%	0,06W
3876 ©	4822 051 30183	18kΩ	5%	0,06W
3877 ©	4822 051 30681	680Ω	5%	0,06W
3878 ©	4822 051 30471	470Ω	5%	0,06W
3879 ©	4822 051 30223	22kΩ	5%	0,06W
3880 ©	4822 051 30339	33Ω	5%	0,06W
3881 ©	4822 051 30151	150Ω	5%	0,06W
3883 ©	4822 051 30472	4,7kΩ	5%	0,06W
3884 ©	4822 051 30472	4,7kΩ	5%	0,06W
3887 ©	4822 051 30103	10kΩ	5%	0,06W
3889 ©	4822 051 30471	470Ω	5%	0,06W
3890 ©	4822 051 30471	470Ω	5%	0,06W
3891 ©	4822 051 30102	1kΩ	5%	0,06W
3892 ©	4822 051 30102	1kΩ	5%	0,06W
3893 ©	4822 051 30471	470Ω	5%	0,06W
3896 ©	4822 051 30101	100Ω	5%	0,06W
3897 ©	4822 051 30333	33kΩ	5%	0,06W
3898 ©	4822 051 30221	220Ω	5%	0,06W
3899 ©	4822 051 30272	2,7kΩ	5%	0,06W
3900 ©	4822 117 13632	100kΩ	1%	0,06W
3901 ©	4822 051 30561	560Ω	5%	0,06W
3902 ©	4822 117 11139	1,5kΩ	1%	0,1W
3903 ©	4822 051 30332	3,3kΩ	5%	0,06W
3904 ©	4822 051 30332	3,3kΩ	5%	0,06W
3905 ©	4822 051 30681	680Ω	5%	0,06W
3906 ©	4822 051 30471	470Ω	5%	0,06W
3907 ©	4822 117 12968	820Ω	5%	0,06W
3908 ©	4822 051 30222	2,2kΩ	5%	0,06W
3909 ©	4822 117 13632	100kΩ	1%	0,06W
3910 ©	4822 051 30471	470Ω	5%	0,06W
3912 ©	4822 051 30221	220Ω	5%	0,06W
3916 ©	4822 051 30471	470Ω	5%	0,06W
3917 ©	4822 117 13608	4,7Ω	5%	0,06W
3918 ©	4822 051 30103	10kΩ	5%	0,06W
3919 ©	4822 051 30153	15kΩ	5%	0,06W
3920 ©	4822 051 30101	100Ω	5%	0,06W

RESISTORS

3923 ©	4822 051 30103	10kΩ	5%	0,06W
3925 ©	4822 051 30101	100Ω	5%	0,06W
3926 ©	4822 051 30101	100Ω	5%	0,06W
3927 ©	4822 051 30101	100Ω	5%	0,06W
3928 ©	4822 051 30101	100Ω	5%	0,06W
4807 ©	4822 051 30008	CHIP JUMPER 0603		
4810 ©	4822 051 30008	CHIP JUMPER 0603		
4811 ©	4822 051 30008	CHIP JUMPER 0603		
4813 ©	4822 051 30008	CHIP JUMPER 0603		
4815 ©	4822 051 20008	CHIP JUMPER 0805		
4816 ©	4822 051 30008	CHIP JUMPER 0603		
4820 ©	4822 051 30008	CHIP JUMPER 0603		
4824 ©	4822 051 30008	CHIP JUMPER 0603		
4835 ©	4822 051 20008	CHIP JUMPER 0805		
4836 ©	4822 051 20008	CHIP JUMPER 0805		
4837 ©	4822 051 20008	CHIP JUMPER 0805		
4838 ©	4822 051 20008	CHIP JUMPER 0805		
4840 ©	4822 051 20008	CHIP JUMPER 0805		
4841 ©	4822 051 20008	CHIP JUMPER 0805		
4843 ©	4822 051 20008	CHIP JUMPER 0805		

COILS

1810	2422 540 98519	RESONATOR 8,467MHz
5001 ©	2422 549 44607	FERRITE BEAD
5002 ©	2422 549 44607	FERRITE BEAD

DIODES

6877 ©	9322 129 34685	BZX284-C3V9

TRANSISTORS

7804 ©	5322 130 42755	BC847C
7875 ©	5322 130 42755	BC847C
7876 ©	5322 130 42755	BC847C
7877 ©	5322 130 42755	BC847C
7878 ©	5322 130 42755	BC847C
7879 ©	5322 130 60123	BC807-40

INTEGRATED CIRCUITS

7800 ©	9352 684 20557	SAA7325H/T/M2B, Signal Processor
7801	4822 209 72554	MC7808CT 8V Regulator
7802 ©	9322 181 79668	MM1469PH Motor Driver
7810 ©	5322 209 82941	LM358D, Dual Opamp
7811 ©	5322 209 82941	LM358D, Dual Opamp

ELECTRICAL PARTSLIST 5DTC MODULE Basic Version Control Board

MECHANICAL PARTS

3103 308 54710	**5DTC Module** (mechanic w/o electronic)

MISCELLANEOUS

1801	2422 025 17065	FFC-CONNECTOR 16P, top entry
1802	2422 025 17788	FFC-CONNECTOR 8P, top entry
8021	3103 308 93110	FFC-CABLE 16Pin 60mm AD

CAPACITORS

2800©	4822 126 13879	220nF	20%	16V
2801©	2238 586 59812	100nF	10%	50V
2802©	2238 586 59812	100nF	10%	50V
2803©	2238 586 59812	100nF	10%	50V
2808	4822 124 40433	47µF	20%	25V
2810©	3198 017 34730	47nF	10%	16V
2811©	2238 586 59812	100nF	10%	50V
2812©	2238 586 59812	100nF	10%	50V
2813©	2238 586 59812	100nF	10%	50V
2814©	2238 586 59812	100nF	10%	50V

RESISTORS

3800©	4822 051 30472	4,7kΩ	5%	0,06W
3801©	4822 051 30472	4,7kΩ	5%	0,06W
3802©	4822 051 30472	4,7kΩ	5%	0,06W
3803©	4822 051 30472	4,7kΩ	5%	0,06W
3804©	4822 051 30472	4,7kΩ	5%	0,06W
3805©	4822 051 30472	4,7kΩ	5%	0,06W
3806©	4822 051 30472	4,7kΩ	5%	0,06W
3807©	4822 051 30472	4,7kΩ	5%	0,06W
3808©	4822 051 30472	4,7kΩ	5%	0,06W
3809©	4822 051 30472	4,7kΩ	5%	0,06W
3810©	4822 051 30103	10kΩ	5%	0,06W
3811©	4822 051 30154	150kΩ	5%	0,06W
3815©	5322 117 13057	820Ω	1%	0,06W
3816©	4822 051 30479	47Ω	5%	0,06W
3818©	4822 051 30479	47Ω	5%	0,06W
3819©	5322 117 13057	820Ω	1%	0,06W
3820©	5322 117 13057	820Ω	1%	0,06W
3821©	4822 051 30479	47Ω	5%	0,06W
3823©	4822 051 30479	47Ω	5%	0,06W
3824©	5322 117 13057	820Ω	1%	0,06W
3826▲	4822 117 12148	1,5Ω	5%	0,33W
3827©	4822 051 30101	100Ω	5%	0,06W
3828©	4822 051 30101	100Ω	5%	0,06W
3829©	4822 051 30101	100Ω	5%	0,06W
3830©	4822 051 30103	10kΩ	5%	0,06W
3831©	4822 051 30103	10kΩ	5%	0,06W
3832©	4822 051 30272	2,7kΩ	5%	0,06W
3833©	4822 051 30272	2,7kΩ	5%	0,06W
3834©	4822 051 30272	2,7kΩ	5%	0,06W
3835©	4822 051 30272	2,7kΩ	5%	0,06W
3836©	4822 051 30272	2,7kΩ	5%	0,06W
3837©	4822 051 30272	2,7kΩ	5%	0,06W
3838©	4822 051 30103	10kΩ	5%	0,06W
3839©	4822 051 30272	2,7kΩ	5%	0,06W
3840©	4822 051 30272	2,7kΩ	5%	0,06W
3841©	4822 051 30103	10kΩ	5%	0,06W
3842©	4822 051 30103	10kΩ	5%	0,06W
3845©	4822 051 20159	15Ω	5%	0,1W
3850©	4822 117 12706	10kΩ	1%	0,06W
3851©	4822 117 12706	10kΩ	1%	0,06W
3852©	4822 117 12706	10kΩ	1%	0,06W
3853©	4822 117 12706	10kΩ	1%	0,06W
3854©	4822 117 12706	10kΩ	1%	0,06W

RESISTORS

3855©	4822 117 12706	10kΩ	1%	0,06W
3856©	4822 117 12706	10kΩ	1%	0,06W
3857©	4822 117 12706	10kΩ	1%	0,06W
3858©	4822 051 30102	1kΩ	5%	0,06W
3859©	4822 051 30103	10kΩ	5%	0,06W
3860©	5322 117 13017	100Ω	1%	0,06W
3861©	2322 704 62002	2kΩ	1%	0,06W
3862©	4822 117 12706	10kΩ	1%	0,06W
3863	4822 053 10228	2,2Ω	5%	1W
4800©	4822 051 30008	CHIP JUMPER 0603		
4802©	4822 051 30008	CHIP JUMPER 0603		
4803©	4822 051 30008	CHIP JUMPER 0603		
4804©	4822 051 30008	CHIP JUMPER 0603		
4805©	4822 051 20008	CHIP JUMPER 0805		
4806©	4822 051 30008	CHIP JUMPER 0603		
4807©	4822 051 30008	CHIP JUMPER 0603		
4808©	4822 051 30008	CHIP JUMPER 0603		
4809©	4822 051 20008	CHIP JUMPER 0805		
4810©	4822 051 20008	CHIP JUMPER 0805		
4811©	4822 051 30008	CHIP JUMPER 0603		
4812©	4822 051 30008	CHIP JUMPER 0603		
4813©	4822 051 30008	CHIP JUMPER 0603		
4814©	4822 051 30008	CHIP JUMPER 0603		
4816©	4822 051 20008	CHIP JUMPER 0805		
4817©	4822 051 20008	CHIP JUMPER 0805		
4818©	4822 051 20008	CHIP JUMPER 0805		
4819©	4822 051 30008	CHIP JUMPER 0603		
4820©	4822 051 30008	CHIP JUMPER 0603		
4821©	4822 051 20008	CHIP JUMPER 0805		
4822©	4822 051 20008	CHIP JUMPER 0805		

COILS

1800	4822 242 72066	CERAMIC FILTER 8,0MHz

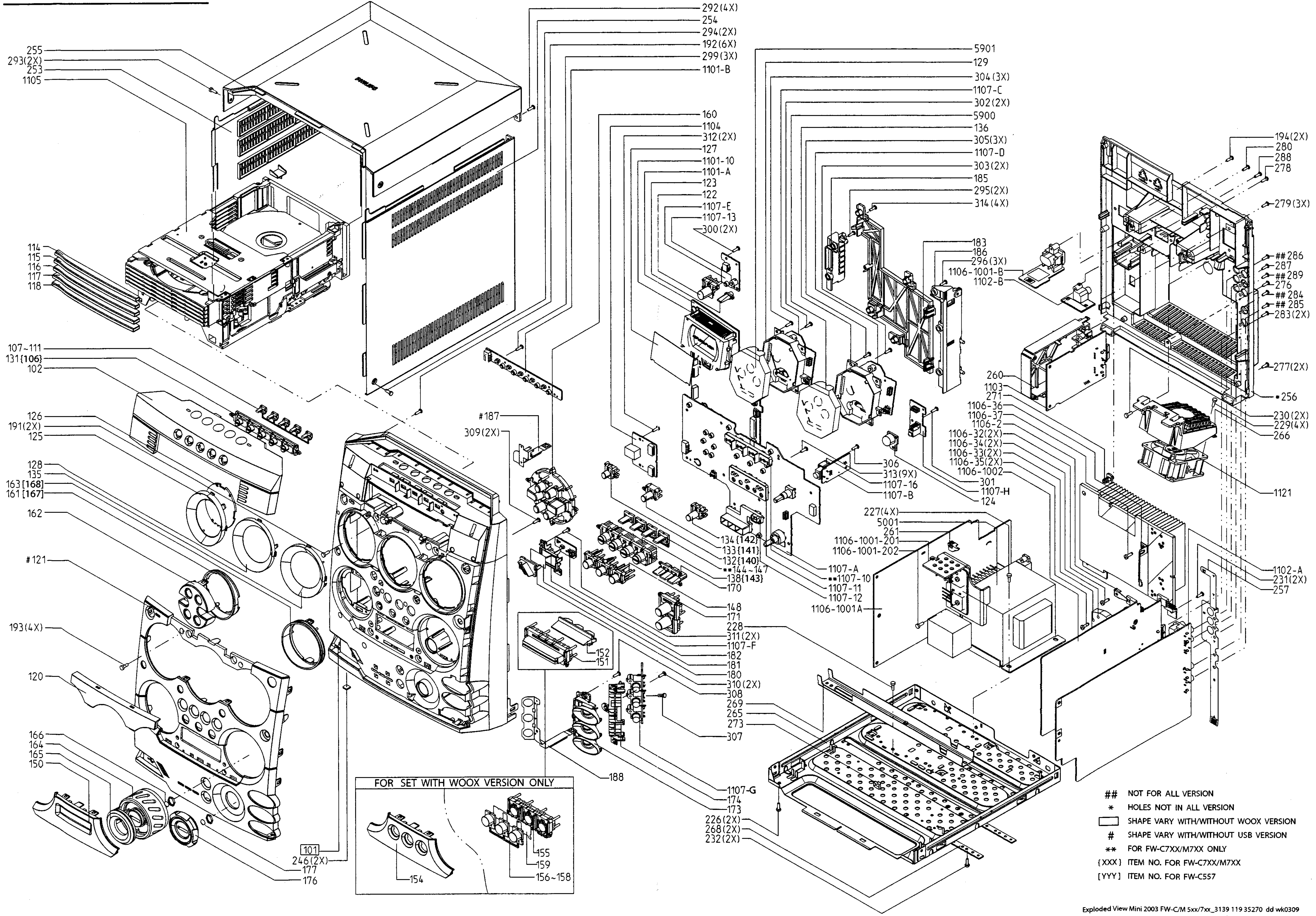
TRANSISTORS

7806©	3198 010 42320	BC857BW

INTEGRATED CIRCUITS

7800	4822 209 72042	MC78L05ACP, STABILIZER
7801©	3103 307 01640	TMP87P809M Microcontroller
7803	4822 209 62059	TCA0372DP1, 2-FOLD OP-AMP.
7805	4822 209 62059	TCA0372DP1, 2-FOLD OP-AMP.

SET MECHANICAL EXPLODED VIEW


255
293(2X)
253
1105
114
115
116
117
118
107~111
131{106}
102
126
191(2X)
125
128
135
163[168]
161[167]
162
#121
193(4X)
120
166
164
165
150
101
246(2X)
177
176
292(4X)
254
294(2X)
192(6X)
299(3X)
1101-B
160
1104
312(2X)
127
1101-10
1101-A
123
122
1107-E
1107-13
300(2X)
5901
129
304(3X)
1107-C
302(2X)
5900
136
305(3X)
1107-D
303(2X)
185
295(2X)
314(4X)
183
186
296(3X)
1106-1001-B
1102-B
194(2X)
280
288
278
279(3X)
##286
287
##289
276
##284
##285
283(2X)
277(2X)
*256
230(2X)
229(4X)
266
1121
1102-A
231(2X)
257
260
1103
271
1106-36
1106-37
1106-2
1106-32(2X)
1106-34(2X)
1106-33(2X)
1106-35(2X)
1106-1002
301
1107-H
124
#187
309(2X)
306
313(9X)
1107-16
1107-B
227(4X)
5001
261
1106-1001-201
1106-1001-202
1106-1001A
134{142}
133{141}
132{140}
**144~147
138{143}
170
148
171
228
311(2X)
1107-F
182
181
180
310(2X)
308
269
265
273
307
1107-A
**1107-10
1107-11
1107-12
152
151
188
1107-G
174
173
226(2X)
268(2X)
232(2X)
FOR SET WITH WOOX VERSION ONLY
154
155
159
156~158

##	NOT FOR ALL VERSION
*	HOLES NOT IN ALL VERSION
▭	SHAPE VARY WITH/WITHOUT WOOX VERSION
#	SHAPE VARY WITH/WITHOUT USB VERSION
**	FOR FW-C7XX/M7XX ONLY
{XXX}	ITEM NO. FOR FW-C7XX/M7XX
[YYY]	ITEM NO. FOR FW-C557

MECHANICAL & ACCESSORIES PARTS LIST - MAIN UNIT

0101	3139 257 51471	Cabinet Front	/21
0101	3139 257 50171	Cabinet Front	/37
0102	3139 257 50191	Panel Front 5DTC	
0106	3139 257 50221	Button Set 5DTC Play	
0107	3139 114 77741	Lightguide 5DTC Play 1	
0108	3139 114 77751	Lightguide 5DTC Play 2	
0109	3139 114 77761	Lightguide 5DTC Play 3	
0110	3139 114 77771	Lightguide 5DTC Play 4	
0111	3139 114 77781	Lightguide 5DTC Play 5	
0114	3139 257 50231	Cover Tray 5DTC 1	
0115	3139 257 50241	Cover Tray 5DTC 2	
0116	3139 257 50251	Cover Tray 5DTC 3	
0117	3139 257 50261	Cover Tray 5DTC 4	
0118	3139 257 50271	Cover Tray 5DTC 5	
0120	3139 257 50201	Panel Front Display	
0121	3139 257 50391	Panel Front Control USB	
0122	3139 257 50281	Button ECO/Standby Power	
0123	3139 114 77901	Lightguide Power ECO	
0124	3139 114 77911	Lightguide IR	
0125	3139 257 50291	Cover Ring FTD	
0126	3139 118 19791	Window Display FTD	
0128	3139 257 50301	Cover Ring VU Meter 1 (Left)	
0129	3139 114 78261	Bracket VU Meter 1 (Left)	
0135	3139 257 50311	Cover Ring VU Meter 2 (Right)	
0136	3139 114 78271	Bracket VU Meter 2 (Right)	
0140	3139 257 50321	Button DIM	
0141	3139 257 50331	Button PROG	
0142	3139 257 50341	Button Clock/Timer	
0143	3139 257 50451	Button Set Source Select	
0144	3139 114 77961	Lightguide Source Sel CD	
0145	3139 114 77971	Lightguide Source Sel TUNER	
0146	3139 114 77981	Lightguide Source Sel PC-LINK	
0147	3139 114 77991	Lightguide Source Sel AUX/ GAME	
0148	3139 257 50351	Button Set IS/DSC/VAC	
0154	3139 257 50381	Cover Orn WOOX	
0155	3139 114 78101	Frame Button WOOX	
0156	3139 257 50421	Lightguide WOOX 1	
0157	3139 257 50431	Lightguide WOOX 2	
0158	3139 257 50441	Lightguide WOOX 3	
0160	3139 118 19841	Button Set Func Control	
0161	3139 118 19861	Cover Ring Func Control Foil	
0162	3139 118 19851	Cap Func Control	
0163	3139 118 19891	Cover Ring Volume Foil	
0164	3139 114 78031	Knob Volume Rotary	
0165	3139 118 19881	Cap Knob Volume	
0166	4822 492 51374	Ring	
0170	3139 114 78161	Lightguide Game Sound	
0171	3139 257 50401	Button MIX-IT/Game Mode	
0173	3139 114 78791	Cover Game Port	
0174	3139 114 78191	Bracket Game Port	
0176	3139 118 19931	Knob Game Sound Control	
0177	4822 492 51374	Ring	
0182	3139 114 78381	Holder LED USB	
0183	3139 114 78301	Bracket PCB Front Display	
0185	3139 114 72750	Bracket CDC Left	
0186	3139 114 72760	Bracket CDC Right	
0246	3139 113 27140	Foot Rubber 4mm	
0253	3139 114 79281	Panel Left	/21
0253	3139 114 79271	Panel Left V2	/37
0254	3139 114 79301	Panel Right	/21
0254	3139 114 79291	Panel Right V2	/37
0255	3139 114 78801	Cover Top	/21
0255	3139 114 78811	Cover Top V2	/37
0256	3139 114 78361	Panel Rear	/21
0256	3139 114 78371	Panel Rear V2	/37
0266	3139 114 79311	Bracket Fan	
0271	3139 114 71010	Stopper Heatsink	
0345	3139 119 02261	L/R Loudspeaker Box	/37
0347	3139 119 02251	L/R Loudspeaker Box	/21
0351	2422 076 00546	Cable FM Aerial	/21
0351	4822 320 11094	FM Antenna Wire	/37
0352	4822 303 50082	Antenna AM Loop	
0353	3139 228 61801	Remote Control	
0356	2422 070 98151	△ Mains Cord	/21
0356	2422 070 98246	△ Mains Cord	/37
0357	3139 128 73010	△ Adaptor Plug	/21
0358	4822 263 21206	Cable Cinch/1M7/Cinch	
0364	2422 076 00523	Cable USB-A/USB-B 1M5 4	
0369	3139 119 00891	CD-ROM USB PC LINK Installer SW	
0370	3139 115 22441	Instruction For Use	/21
0370	3139 115 22381	Instruction For Use	/37
1104	3103 308 66991	PBAS USB PC LINK	
1121	2822 031 01494	Fan 12VDC 0,8W 3100RPM	
5001	3139 118 32711	△ Mains Transformer	/21
5001	3139 118 32731	△ Mains Transformer	/37
5900	3139 110 53521	Meter VU	
5901	3139 110 53521	Meter VU	
8202	3139 110 35350	FFC Foil 11P/220/11P AD	
8203	3139 110 35010	FFC Foil 07P/340/07P AD	
8404	3139 111 02511	FFC Foil 08P/300/08P AD Fold	
8405	3139 110 35280	FFC Foil 10P/120/10P AD	
8407	3139 110 34920	FFC Foil 08P/280/08P BD	
8408	3139 111 02491	FFC Foil 19P/280/19P AD	
8410	3139 111 02501	FFC Foil 05P/180/05P AD Fold	
8412	3139 110 35031	FFC Foil 08P/140/08P AD	
8413	3139 110 35400	FFC Foil 09P/340/09P AD	
8415	3139 110 34600	FFC Foil 07P/280/07P AD	
8417	3139 110 36150	FFC Foil 15P/280/15P AD	
8501	3139 110 33940	FFC Foil 04P/180/04P BD	
8601	3139 111 02481	FFC Foil 08P/180/08P AD	

L/R LOUDSPEAKER BOX BREAKDOWN

9965 000 18392	Kendo Mask (L)
9965 000 18393	Kendo Mask (R)
9965 000 18394	Woofer 6,5" 6R 165W
9965 000 18395	Woofer Ring (L)
9965 000 18396	Woofer Ring (R)
9965 000 18397	Tweeter 2" 6R
9965 000 18398	Tweeter Ring
9965 000 18399	Woox 6,5"
9965 000 18400	Woox Ring
9965 000 18389	Rubber Foot (20 x 11 x 3 mm)
9965 000 18401	Rubber Foot (Dia. 15 x 1 mm)

Note : Only the parts mentioned in this list are normal service spare parts.

SCREW LISTS - MAIN UNIT

191	D3 x 12
192	D2 x 6
193	D3 x 12
194	D3 x 12
226	M3 x 6
227	M3 x 10
228	M3 x 6
229	D3 x 12
230	M3 x 12
231	M3 x 6
232	M3 x 6
276	M3 x 6
277	M3 x 10
278	D3 x 16
279	D3 x 12
280	D3 x 12
283	D3 x 12
286	D3 x 12
287	D3 x 12
288	D3 x 12
292	M3 x 12
293	M3 x 12
294	M3 x 6
295	D3 x 12
296	D3 x 12
299	D2 x 8
300	D3 x 12
301	D3 x 12
302	D3 x 10
303	D3 x 10
304	D3 x 12
305	D3 x 12
306	D3 x 12
307	D3 x 12
308	D3 x 12
309	D2 x 8
310	D3 x 10
311	D2 x 8
312	D3 x 12
313	D3 x 12
314	D3 x 12

REVISION LIST

Version 1.0 (3139 785 30320)

* Initial Release (FW-C777/37)

Version 1.1 (3139 785 30321)

* Introduction of FW-C777/21
* Page 6-5 : Front Display Board - Electrical parts list adapted
* Page 11-2 : Mechanical & Accessories parts list adapted
* Page 11-2 : Additional of L/R Loudspeaker Box Breakdown

Version 1.2 (3139 785 30322)

* Page 5-9 to 5-10 : Front Control Board - Electrical parts list adapted
* Page 8-9 to 8-10 : AF11 Board - Electrical parts list adapted
* Page 11-2 : Mechanical & Accessories parts list adapted